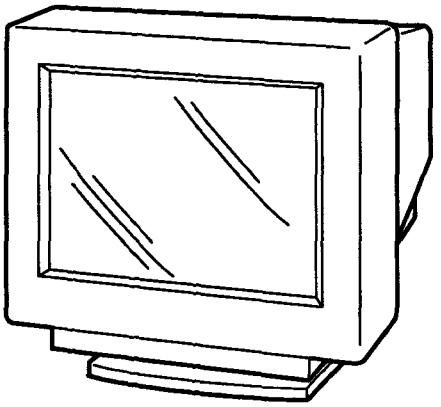
GDM-200PS/200PST

SERVICE MANUAL



GDM-200PS

US Model

Canadian Model

SH Model

Chassis No. SCC-L11B-A

GDM-200PST

AEP Model

UK Model

Chassis No. SCC-L11C-A

N3 CHASSIS

SPECIFICATIONS

Picture tube	0.25 mm aperture grille pitch 17 inches measured diagonally 90-degree deflection
Viewable image size	Approx. 327 × 243 mm (w/h) (12 7/8 × 9 5/8 inches) 16.0" viewing image
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 312 × 234 mm (w/h) (12 3/8 × 9 1/4 inches) or Approx. 293 × 234 mm (w/h) (11 5/8 × 9 1/4 inches)
Deflection frequency	Horizontal: 30 to 92 kHz Vertical: 48 to 160 Hz
AC input voltage/current	100 to 240 V, 50 – 60 Hz, 1.7 – 1.0 A
Power consumption	Max. 120 W
Dimensions	406 × 432 × 420 mm (w/h/d) (16 × 17 1/8 × 16 5/8 inches)
Mass	Approx. 18.8 kg (41 lb 7 oz)
Supplied accessories	See page 6

Design and specifications are subject to change without notice.

997858701

MICROFILM

TRINITRON® COLOR GRAPHIC DISPLAY

SONY®

POWER SAVING FUNCTION

This monitor is capable of three states of reduced power consumption. By sensing the absence of video signals and one or both sync signals coming from the host computer, it will reduce power consumption as follows.

Power consumption state	Power consumption	Recovery time	⏻ power indicator
1 Normal operation	≤120 W	–	Green on
2 Standby (1st state)	≤85 W	Approx. 1 sec.	Green and orange alternate
3 Suspend (2nd state)	≤15 W	Approx. 3 sec.	Green and orange alternate
4 Active-off (3rd state)	≤5 W	Approx. 15 sec.	Orange on
5 Power-off	0 W	–	Off

DIAGNOSIS

Failre	Power LED
+B failure	Amber (0.5 sec) → Off (0.5 sec)
Horizontal / Vertical Deflection failure, Thermal protector	Amber (1.5 sec) → Off (0.5 sec)
ABL protector	Amber (0.5 sec) → Off (1.5 sec)
HV failure	Amber (0.25 sec) → Off (0.5 sec) → Amber (0.25 sec) → Off (1.25 sec)
Aging / Self Test	Amber (0.5 sec) → Off (0.5 sec) → Green (0.5 sec) → Off (0.5 sec)

Aging Mode (Video Aging) : During Power Save, press "MENU" key for longer than 2 second.
Self Test (OSD Color Bar) : During Power Save, press "CONTRAST" + (↑) key for longer than 2 second.
Reliability Check Mode : During Power Save, press "CONTRAST"– (↓) key for longer than 2 second.

TIMING SPECIFICATION

MODE AT PRODUCTION	MODE 1	MODE 2
RESOLUTION	1280 X 960	1280 X 1024
CLOCK	148.500 MHz	135.000 MHz
— HORIZONTAL —		
H-FREQ	85.938 kHz	79.976 kHz
	usec	usec
H. TOTAL	11.636	12.504
H. BLK	3.017	3.022
H. FP	0.431	0.119
H. SYNC	1.077	1.067
H. BP	1.508	1.837
H. ACTIV	8.620	9.481
— VERTICAL —		
V. FREQ(Hz)	85.002 Hz	75.025 Hz
	lines	lines
V. TOTAL	1011	1066
V. BLK	51	42
V. FP	1	1
V. SYNC	3	3
V. BP	47	38
V. ACTIV	960	1024
— SYNC —		
INT(G)	NO	NO
EXT(H/V)/POLARITY	YES P/P	YES P/P
EXT(CS)/POLARITY	NO	NO
INT/NON INT	NON INT	NON INT

97 7 14 VER.

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

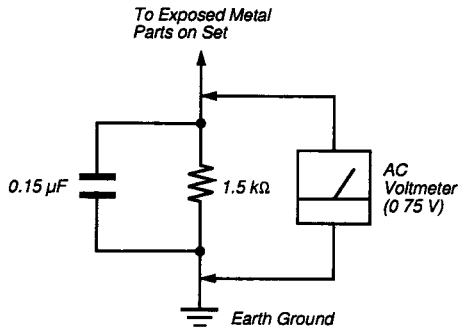


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

WARNING!!
NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

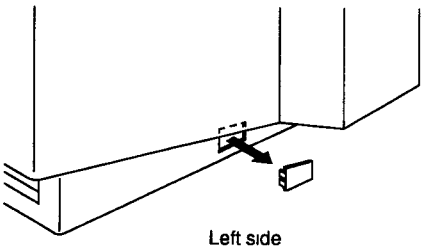
SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!
NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVÉE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SONT CRITIQUES POUR LA SÉCURITÉ. NE LES REMPLACER QUE PAR UNE PIÈCE PORTANT LE NUMÉRO SPECIFIÉ. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNE-MENT EST SUSPECTÉ.

CAUTION ON DAS (ECS) CONNECTOR

- The connector for DAS (ECS) adjustment is provided inside the cover shown below. Be careful with an electrical shock when connecting the connector with the power supplied. Also, return the removed cover to the home position.



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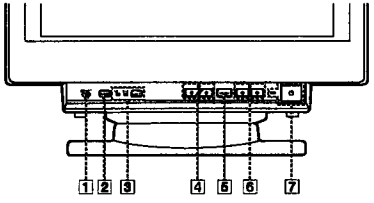
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

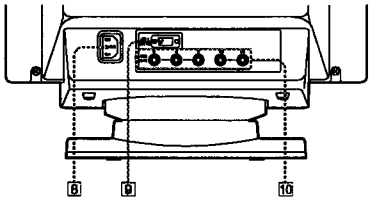
Identifying Parts and Controls

See the pages in parentheses for further details

Front



Rear



1 RESET (reset) button (page 17)
Resets the adjustments to the factory settings

2 ASC (auto sizing and centering) button (page 7)
Automatically adjusts the size and centering of the images

3 INPUT (input) button and HD15/BNC indicators (page 8)
Selects the HD15 or 5BNC video input signal Each time you press this button, the input signal and corresponding indicator alternate

4 ☼ (brightness) (↓/↑) buttons (pages 8 – 17)
Adjust the picture brightness

Function as the (↓/↑) buttons when adjusting other items

5 MENU (menu) button (pages 8, 10 -17)
Displays the MENU OSD

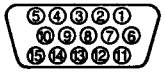
6 ◑ (contrast) (←/→) buttons (pages 8 – 17)
Adjust the contrast.

Function as the (←/→) buttons when adjusting other items

7 ⏻ (power) switch and indicator (pages 19, 22)
Turns the monitor on or off
The indicator lights up in green when the monitor is turned on, and lights up in orange when the monitor is in power saving mode

8 AC IN connector
Provides AC power to the monitor

9 Video Input 1 connector (HD15)
Inputs RGB video signals (0 714 Vp-p, positive) and SYNC signals



Pin No	Signal	Pin No	Signal
1	Red	8	Blue Ground
2	Green (Composite Sync on Green)	9	DDC + 5V*
		10	Ground
		11	Ground
3	Blue	12	Bi-Directional Data (SDA)*
4	Ground		
5	DDC Ground*	13	H Sync
6	Red Ground	14	V Sync
7	Green Ground	15	Data Clock(SCL)*

* Display Data Channel (DDC) Standard of VESA

10 Video Input 2 connector (5 BNC)
Inputs RGB video signals (0 714 Vp-p, positive) and SYNC signals

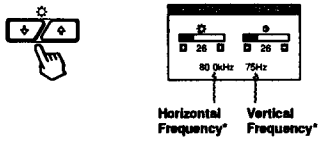
EN

Before adjusting
- Connect the monitor and the computer, and turn them on
- Select "🅰 LANG" in the MENU OSD, then select "ENGLISH" (English) (see page 17)

Adjusting the Picture Brightness

Once the setting is adjusted, it will be stored in memory for all input signals received

1 Press the ☼ (brightness) ↓/↑ buttons
The BRIGHTNESS/CONTRAST OSD appears



2 Press the ☼↓/↑ buttons again to adjust the picture brightness

The OSD automatically disappears after about 3 seconds

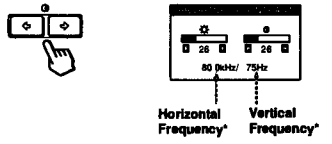
To reset, press the RESET button while the OSD is on The brightness and contrast are both reset to the factory settings

* The horizontal and vertical frequencies for the received input signal appear in the BRIGHTNESS/CONTRAST OSD

Adjusting the Picture Contrast

Once the setting is adjusted, it will be stored in memory for all input signals received

1 Press the ◑ (contrast) ←/→ buttons.
The BRIGHTNESS/CONTRAST OSD appears



2 Press the ◑←/→ buttons again to adjust the picture contrast

The OSD automatically disappears after about 3 seconds

To reset, press the RESET button while the OSD is on The brightness and contrast are both reset to the factory settings.

* The horizontal and vertical frequencies for the received input signal appear in the BRIGHTNESS/CONTRAST OSD

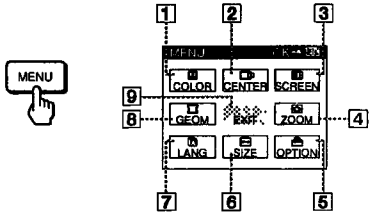
EN

Introducing the On-screen Display System

Most adjustments are made using the MENU OSD

MENU OSD

Press the MENU button to display the MENU OSD
This MENU OSD contains links to the other OSDs described below



1 **COLOR**
Displays the COLOR OSD for adjusting the color temperature

2 **CENTER**
Displays the CENTER OSD for adjusting the centering of the picture

3 **SCREEN**
Displays the SCREEN OSD for adjusting the vertical and horizontal convergence, etc

4 **ZOOM**
Displays the ZOOM OSD for enlarging and reducing the picture

5 **OPTION**
Displays the OPTION OSD for adjusting the OSD position and degaussing the screen, etc

6 **SIZE**
Displays the SIZE OSD for adjusting the picture size

7 **LANG**
Displays the LANGUAGE OSD for selecting the language

8 **GEOM**
Displays the GEOMETRY OSD for adjusting the picture rotation and pincushion, etc.

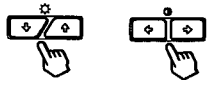
9 **EXIT**
Closes the MENU OSD.

Navigating the MENU on-screen display

Select a link using the ☼↓/↑ and ◑←/→ buttons in the MENU OSD

1 Press the MENU button
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select a link
The selected link turns yellow



3 Press the MENU button
The selected OSD appears

If no buttons are pressed, the MENU OSD automatically disappears after about 10 seconds
To close the MENU OSD, select "EXIT" and press the MENU button

Adjusting the on-screen display settings

Select an item using the ☼↓/↑ buttons and adjust or select the setting of that item using the ◑←/→ buttons

To select an item, press the ☼↓ or ↑ button.
The ▶ mark goes to the selected item and the item turns yellow

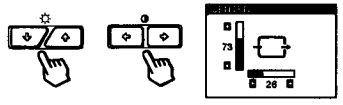
To adjust or set an item, press the ◑← or → button.
When adjusting an item, the bar length and the figure increase or decrease
When setting an item, the ■ mark turns green

Using the CENTER On-screen Display

The CENTER settings allow you to adjust the centering of the picture
Once the setting is adjusted, it will be stored in memory for the current input signal

1 Press the MENU button
The MENU OSD appears

2 Press the ☼↓/↑ and ◑←/→ buttons to select "CENTER," and press the MENU button again
The CENTER OSD appears



3 For horizontal adjustment
Press the ◑←/→ buttons

→ to move the picture right
← to move the picture left

For vertical adjustment
Press the ☼↓/↑ buttons

↑ to move the picture up
↓ to move the picture down

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

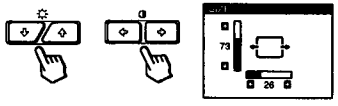
To reset, press the RESET button while the OSD is on
The horizontal and vertical centerings are both reset to the factory settings.

Using the SIZE On-screen Display

The SIZE settings allow you to adjust the size of the picture
Once the setting is adjusted, it will be stored in memory for the current input signal

1 Press the MENU button
The MENU OSD appears

2 Press the ☼↓/↑ and ◑←/→ buttons to select "SIZE," and press the MENU button again.
The SIZE OSD appears



EN

3 For horizontal adjustment
Press the ◑←/→ buttons

→ to increase picture size
← to decrease picture size

For vertical adjustment
Press the ☼↓/↑ buttons

↑ to increase picture size
↓ to decrease picture size

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

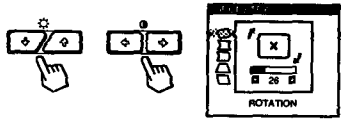
To reset, press the RESET button while the OSD is on
The horizontal and vertical sizes are both reset to the factory settings

Using the GEOM (Geometry) On-screen Display

The GEOM (geometry) settings allow you to adjust the shape and orientation of the picture
Once the rotation is adjusted, it will be stored in memory for all input signals received All other adjustments will be stored in memory for the current input signal

1 Press the MENU button.
The MENU OSD appears

2 Press the ☼⬇/⬆ and ◑⬅/➡ buttons to select " GEOM," and press the MENU button again
The GEOMETRY OSD appears



3 Press the ☼⬇/⬆ buttons to select the item you want to adjust

Select	To
ROTATION	adjust the picture rotation
PINCUSHION	adjust the picture sides
PIN BALANCE	adjust the picture side balance
KEYSTONE	adjust the picture width
KEY BALANCE	adjust the picture shape balance

4 Press the ◑⬅/➡ buttons to adjust the settings.

For	Press	
ROTATION	➡	to rotate the picture clockwise
	⬅	to rotate the picture counterclockwise
PINCUSHION	➡	to expand the picture sides
	⬅	to contract the picture sides
PIN BALANCE	➡	to move the picture sides to the right
	⬅	to move the picture sides to the left
KEYSTONE	➡	to increase the picture width at the top
	⬅	to decrease the picture width at the top
KEY BALANCE	➡	to move the top of the picture to the right
	⬅	to move the top of the picture to the left

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

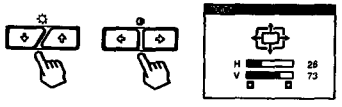
To reset, press the RESET button while the OSD is on
The selected item is reset to the factory setting

Using the ZOOM On-screen Display

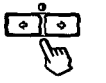
The ZOOM settings allow you to enlarge or reduce the picture
Once the setting is adjusted, it will be stored in memory for the current input signal

1 Press the MENU button.
The MENU OSD appears

2 Press the ☼⬇/⬆ and ◑⬅/➡ buttons to select " ZOOM," and press the MENU button again
The ZOOM OSD appears



3 Press the ◑⬅/➡ buttons to adjust the picture zoom.



➡ to enlarge the picture
⬅ to reduce the picture

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

To reset, press the RESET button while the OSD is on

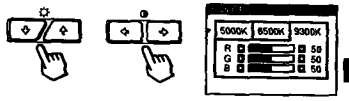
Note
The picture zoom adjustment will stop as soon as either the horizontal or vertical size reaches its maximum or minimum value

Using the COLOR On-screen Display

You can change the monitor's color temperature For example, you can change the colors of a picture on the screen to match the actual colors of the printed picture
Once the setting is adjusted, it will be stored in memory for all input signals received

1 Press the MENU button.
The MENU OSD appears

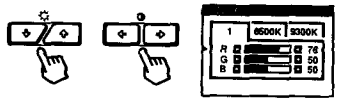
2 Press the ☼⬇/⬆ and ◑⬅/➡ buttons to select " COLOR," and press the MENU button again
The COLOR OSD appears



3 Press the ◑⬅/➡ buttons to select the color temperature

There are three color temperature modes in the OSD
The preset adjustments are
5000K, 6500K, 9300K

Fine tunig the color temperature
Press the ☼⬇/⬆ buttons to select R (red), G (green), or B (blue) and adjust by pressing the ◑⬅/➡ buttons.



The "5000K," "6500K" or "9300K" disappears and the new color settings are memorized for each of the three color modes.
The color temperature modes change as follows
5000K→ 1, 6500K→ 2, 9300K→ 3

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

To reset, press the RESET button while the OSD is on The selected color temperature is reset to the factory settings

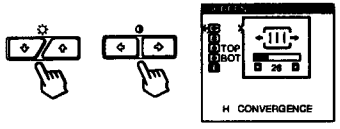
EN

Using the SCREEN On-screen Display

Adjust convergence settings to eliminate red or blue shadows that may appear around objects on the screen
Adjust the CANCEL MOIRE function to eliminate wavy or elliptical lines that may appear on the screen
Once CANCEL MOIRE is adjusted, it will be stored in memory for the current input signal All other adjustments will be stored in memory for all input signals received

1 Press the MENU button
The MENU OSD appears

2 Press the ☼↓/↑ and ◑←/→ buttons to select " SCREEN," and press the MENU button again
The SCREEN OSD appears



3 Press the ☼↓/↑ buttons to select the item you want to adjust.

Select	To
H CONVERGENCE	adjust the horizontal convergence
V CONVERGENCE	adjust the vertical convergence
TOP V CONVER TOP	adjust the screen's upper vertical convergence
BOT V CONVER BOTTOM	adjust the screen's lower vertical convergence
CANCEL MOIRE	eliminate elliptical or wavy lines on the screen
ADJ * MOIRE ADJUST	adjust the degree of moire cancellation

* CANCEL MOIRE must be "ON" for " ADJ (MOIRE ADJUST)" to appear on the screen

4 Press the ◑←/→ buttons to adjust the settings

For	Press	
H CONVERGENCE	→	to shift red shadows to the right and blue shadows to the left
	←	to shift red shadows to the left and blue shadows to the right
V CONVERGENCE	→	to shift red shadows up and blue shadows down
	←	to shift red shadows down and blue shadows up
TOP V CONVER TOP	→	to shift red shadows up and blue shadows down
	←	to shift red shadows down and blue shadows up
BOT V CONVER BOTTOM	→	to shift red shadows up and blue shadows down
	←	to shift red shadows down and blue shadows up
CANCEL MOIRE	→	to turn CANCEL MOIRE "ON"
	←	to turn CANCEL MOIRE "OFF"
ADJ MOIRE ADJUST	→	to increase the moire cancellation effect
	←	to decrease the moire cancellation effect

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

To reset, press the RESET button while the OSD is on
The selected item is reset to the factory setting

Using the OPTION On-screen Display

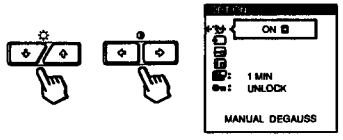
The OPTION OSD allows you to manually degauss the screen and adjust settings such as the OSD position and power saving delay time It also allows you to lock the controls

Degaussing the screen

The monitor screen is automatically degaussed (demagnetized) when the power is turned on
You can also manually degauss the monitor

1 Press the MENU button
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again.
The OPTION OSD appears



3 Press the ☼↓/↑ buttons to select " (MANUAL DEGAUSS)."

4 Press the ◑ → button.
The screen is degaussed for about 2 seconds

If you need to degauss the screen a second time, wait for at least 20 minutes before repeating the steps above

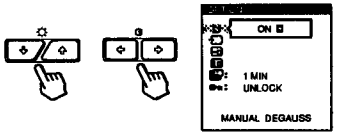
The OPTION OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

Changing the on-screen display position

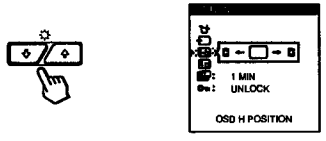
You can change the OSD position (for example, when you want to adjust the picture behind the OSD)

1 Press the MENU button
The MENU OSD appears

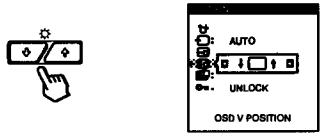
2 Press the ☼↓/↑ and ◑←/→ buttons to select " OPTION," and press the MENU button again
The OPTION OSD appears



3 Press the ☼↓/↑ buttons to select " (OSD H POSITION)" or " (OSD V POSITION)."
Select " (OSD H POSITION)" to adjust the horizontal position



Select " (OSD V POSITION)" to adjust the vertical position



4 Press the ◑←/→ buttons to move the OSD to the desired position

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again

To reset, press the RESET button while the OSD is on

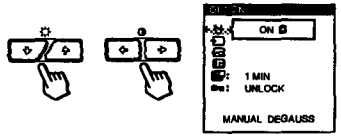
EN

Setting the power saving delay time

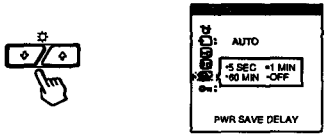
You can set the delay time before the monitor enters the power saving mode See page 19 for more information on this monitor's power saving capabilities

1 Press the MENU button
The MENU OSD appears

2 Press the ☼↓/↑ and ◑⇐/⇒ buttons to select "🧰 OPTION," and press the MENU button again
The OPTION OSD appears



3 Press the ☼↓/↑ buttons to select "🖵 (PWR SAVE DELAY)."



4 Press the ◑⇐/⇒ buttons to select the desired time.

When PWR SAVE DELAY is set to "OFF," the monitor does not go into power saving mode

The OPTION OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

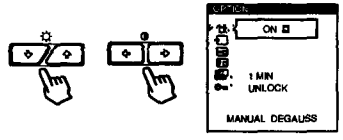
To reset, press the RESET button while the OSD is on

Locking the controls

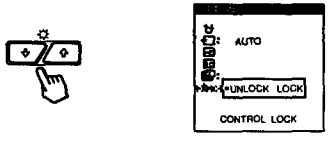
The control lock function disables all of the buttons on the front panel except the ⏻ (power) switch, MENU and INPUT buttons

1 *Press the MENU button.*
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑⇐/⇒ buttons to select "🧰 OPTION," and press the MENU button again.
The OPTION OSD appears



3 Press the ☼↓/↑ buttons to select "🔑 (CONTROL LOCK)."



4 Press the ◑⇐/⇒ buttons to select "LOCK "

The OPTION OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

Once you select "LOCK," you cannot select any items except "EXIT" and "🧰 OPTION" in the MENU OSD
If you press any button other than the ⏻ (power) switch, MENU and INPUT buttons, the 🔑 mark appears on the screen

To cancel the control lock

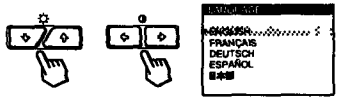
Repeat steps 1 through 3 above and press the ◑⇐/⇒ buttons to select "UNLOCK."

Using the LANG (Language) On-screen Display

English, French, German, Spanish and Japanese versions of the OSDs are available

1 Press the MENU button.
The MENU OSD appears.

2 Press the ☼↓/↑ and ◑⇐/⇒ buttons to select "🅰 LANG," and press the MENU button again.
The LANGUAGE OSD appears



3 Press the ☼↓/↑ buttons to select the desired language

ENGLISH English, FRANÇAIS French,
DEUTSCH German, ESPAÑOL Spanish,
or 日本語 Japanese

The OSD automatically disappears after about 30 seconds
To close the OSD, press the MENU button again

To reset to English, press the RESET button while the OSD is on

Resetting the Adjustments

Resetting an adjustment item

1 Press the MENU, ☼↓/↑ and ◑⇐/⇒buttons to select the OSD containing the item you want to reset

2 Press the ☼↓/↑ buttons to select the item you want to reset.

3 Press the RESET button

Resetting all of the adjustment data for the current input signal

When there is no OSD displayed, press the RESET button.
All of the adjustments data for the current input signal is reset to the factory settings
Note that adjustment data not affected by changes in input signal (OSD language, OSD position, input signal selection, power saving delay time and the control lock function) is not reset to the factory settings

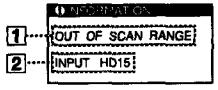
Resetting all of the adjustment data for all input signals

Press and hold the RESET button for more than two seconds.
All of the adjustment data, including the brightness and contrast, is reset to the factory settings

EN

Warning Messages

If there is something wrong with the input signal, one of the following messages appears
The message disappears after about 30 seconds



1 The input signal condition

"OUT OF SCAN RANGE" indicates that the input signal is not supported by the monitor's specifications

"NO INPUT SIGNAL" indicates that no signal is input, or the input signal from the selected input connector is not received

2 The selected input connector

Indicates which input connector is receiving the wrong signal If there is something wrong with the signal from both input connectors, "HD15" and "BNC" are displayed alternately

To solve these problems, see "Troubleshooting" below

Troubleshooting

This section may help you isolate the cause of a problem and as a result, eliminate the need to contact technical support

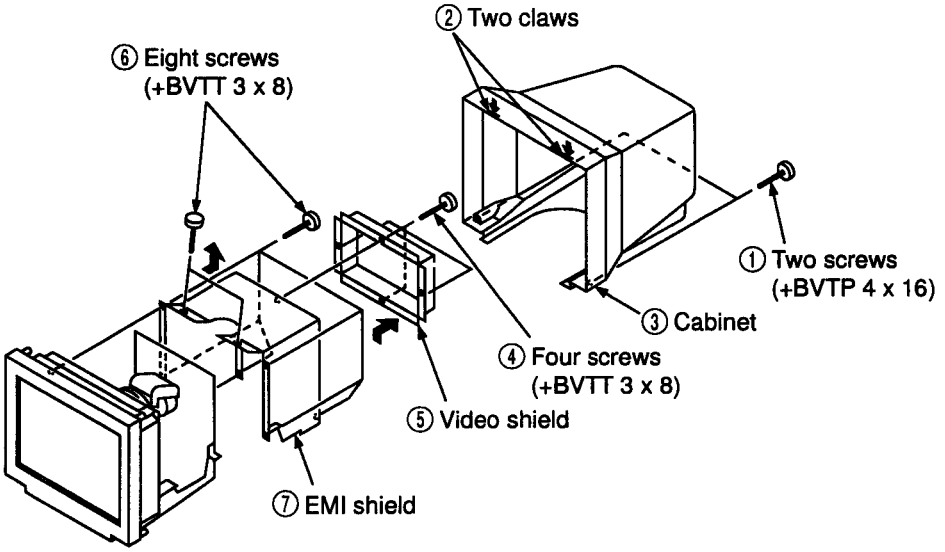
Symptom	Check these items
No picture	
If the ⏻ indicator is not lit	• Check that the power cord is properly connected • Check that the ⏻ (power) switch is in the "on" position
If the "NO INPUT SIGNAL" message appears on the screen, or if the ⏻ indicator is either orange or alternating between green and orange	• Try pressing any key on the computer keyboard • Check that your computer power switch is in the "on" position • Check that the input select setting is correct • Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets • Check that the 5 BNCs are connected in the correct order (from left to right: Red–Green–Blue–HD–VD) (page 6) • Ensure that no pins are bent or pushed in the HD15 video input connector • Check that the video board is completely seated in the proper bus slot
If the "OUT OF SCAN RANGE" message appears on the screen	• Check that the video frequency range is within that specified for the monitor (Horizontal 30 – 92 kHz, Vertical 48 – 160 Hz) Refer to your computer's instruction manual to adjust the video frequency range • If you are using a video signal cable adapter, check that it is correct
If no message is displayed and the ⏻ indicator is green or flashing orange	• See "Self-diagnosis Function" (page 22)
If using a Macintosh system	• Check that the Macintosh adapter and the video signal cable are properly connected (page 6)
If using Windows® 95	• If you cannot find "GDM-200PS" among the Sony monitors in the Windows 95 monitor selection screen, select the *DDC standard monitor* or install the Windows 95 Monitor Information Disk (page 7) The DDC standard does not apply to the 5 BNC connectors If you use the DDC standard, connect the computer to the HD15 connector with the supplied video signal cable
Picture is scrambled	• Check your graphics board manual for the proper monitor setting • Check this manual and confirm that the graphics mode and the frequency you are trying to operate at is supported Even if the frequency is within the proper range, some video boards may have a sync pulse that is too narrow for the monitor to sync correctly

Symptom	Check these items
Color is not uniform	• Degauss the monitor (page 15) If you place equipment which generates a magnetic field, such as a loudspeaker, near the monitor, or you change the direction of the monitor, color may lose uniformity The degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result
You cannot adjust the monitor with the buttons on the front panel	• If the control lock function is set to on, set it to off using the OPTION OSD (page 16)
White does not look white	• Adjust the color temperature (page 13) • Check that the 5 BNCs are connected in the correct order (from left to right: Red–Green–Blue–HD–VD) (page 6)
Screen image is not centered or sized properly	• Adjust the size or centering (page 11) • Some video modes do not fill the screen to the edges This problem tends to occur with certain video boards
Edges of the image are curved	• Adjust the geometry (page 12)
White lines show red or blue shadows at edges	• Adjust the convergence (page 14)
Picture is fuzzy	• Adjust the contrast and brightness (page 9) • Degauss the monitor (page 15) If you place equipment which generates a magnetic field, such as a loudspeaker, near the monitor, or you change the direction of the monitor, color may lose uniformity The degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result. • If red or blue shadows appear along the edges of images, adjust the convergence (page 14) • If the moire is cancelled, the picture may become fuzzy Decrease the moire cancellation effect (page 14)
Picture bounces or has wavy oscillations	• Isolate and eliminate any potential sources of electric or magnetic fields Common causes for this symptom are electric fans, fluorescent lighting or laser printers • If you have another monitor close to this monitor, increase the distance between them to reduce the interference • Try plugging the monitor into a different AC outlet, preferably on a different circuit • Try the monitor on a different computer in a different room
Picture is flickering	• Set the refresh rate on the computer to obtain the best possible picture by referring to your computer's manual
Picture appears to be ghosting	• Eliminate the use of video cable extensions and/or video switch boxes if this symptom occurs Excessive cable length or a weak connection can produce this symptom
Wavy or elliptical (moire) pattern is visible	• Cancel the moire (page 14) The moire may be modified depending on the connected computer • Due to the relationship between resolution, monitor dot pitch and the pitch of some image patterns, certain screen backgrounds sometimes show moire Change your desktop pattern
Two fine horizontal lines (wires) are visible	• These wires stabilize the vertically striped aperture grille (page 19) This aperture grille allows more light to pass through to the screen giving the Trinitron CRT more color and brightness
Hum is heard right after the power is turned on	• When the power is turned on, the auto-degauss cycle is activated While the auto-degauss cycle is activated, a hum may be heard The same hum is heard when the monitor is manually degaussed This is not a malfunction

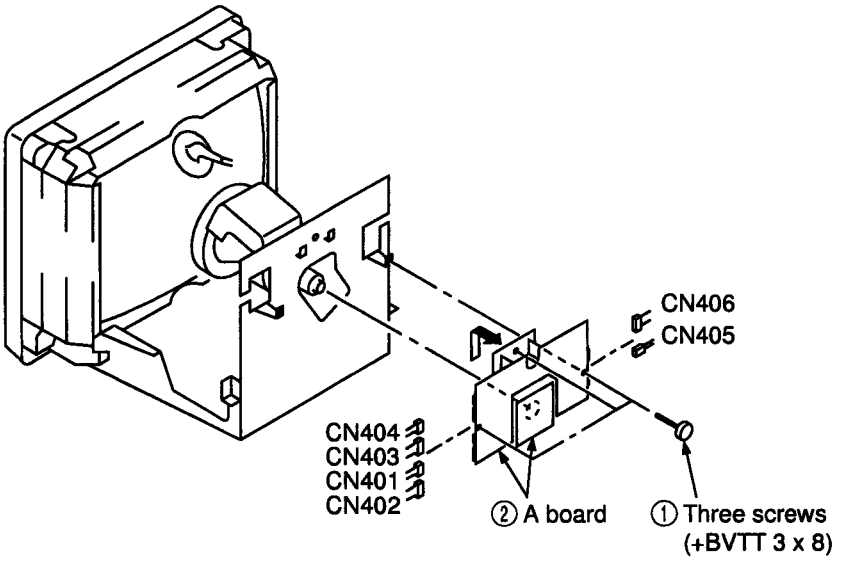
EN

SECTION 2
DISASSEMBLY

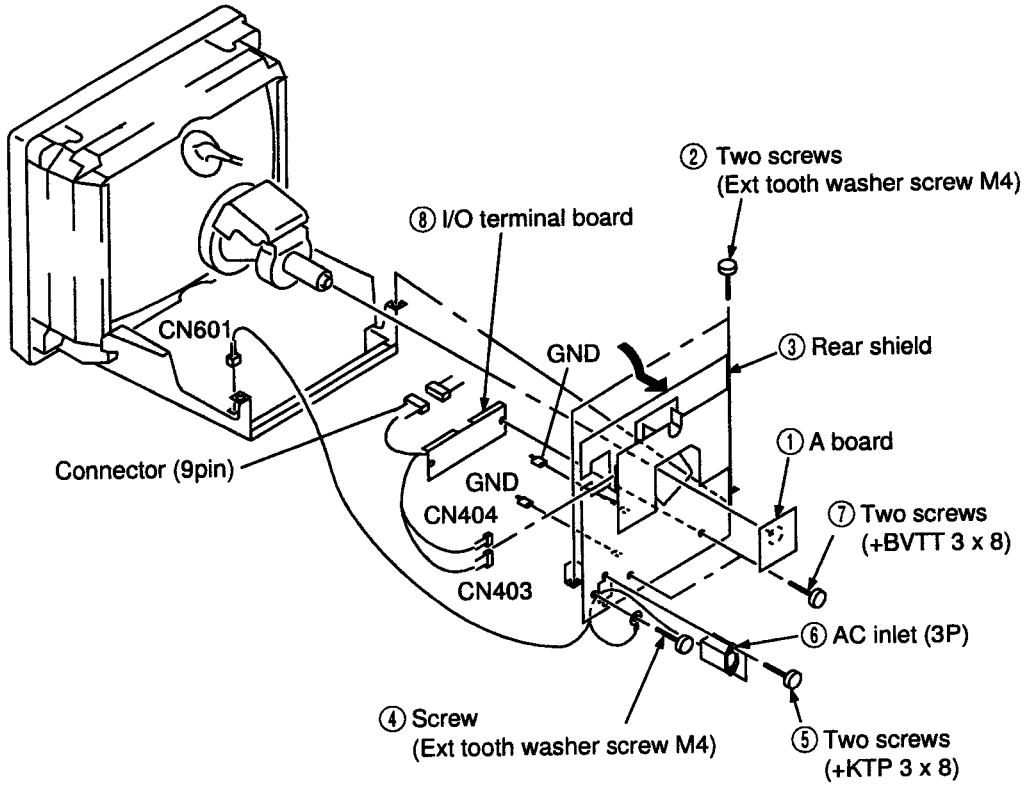
2-1. CABINET REMOVAL



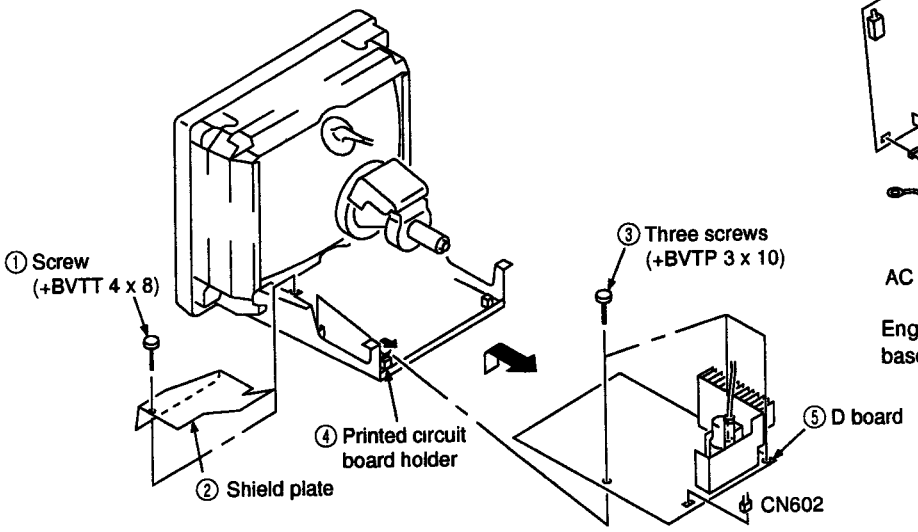
2-2. A BOARD REMOVAL



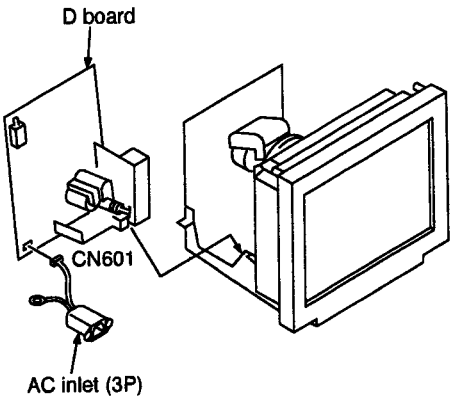
2-3. AC INLET AND I/O TERMINAL BOARD REMOVAL



2-4. D BOARD REMOVAL

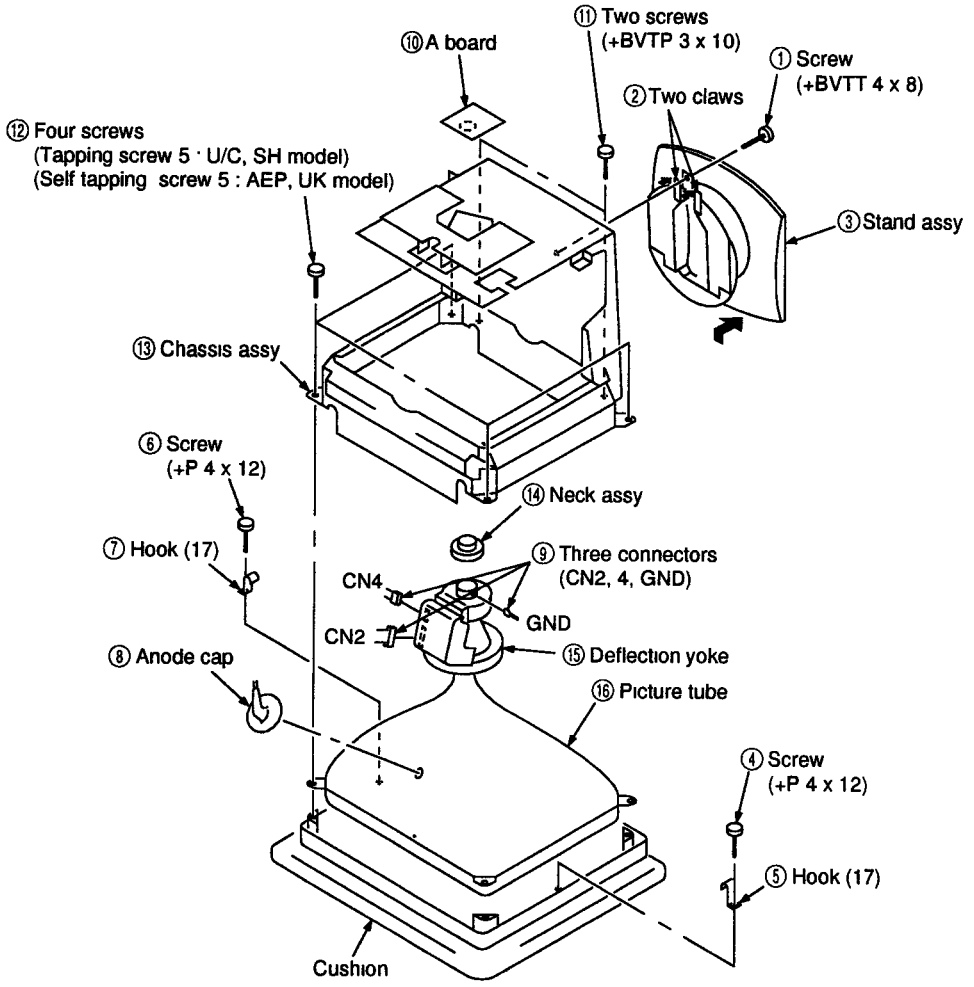


2-5. SERVICE POSITION



Engage a slit in D board heat sink with the base chassis to fix.

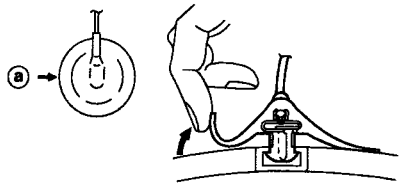
2-6. PICTURE TUBE REMOVAL



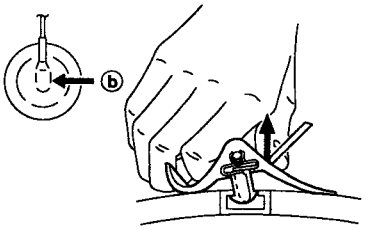
• REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

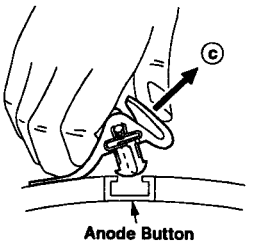
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



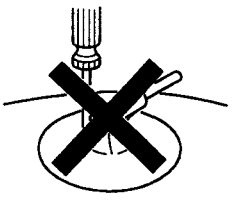
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

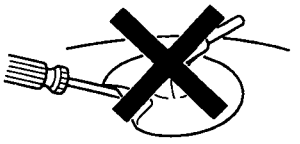


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with shartp shaped material!
② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SAFETY RELATED ADJUSTMENT

When replacing or repairing the shown below table, the following operational checks must be performed as a safety precaution against X-rays emissions from the unit.

	Part Replaced (▣)
HV ADJ	RV901

	Part Replaced (◪)
HV Regulator Circuit	D board IC901, R903, R922, T901 • Mounted D board
HV HOLD DOWN Circuit	D board D913, D916, C923, R920, R927, T901 • Mounted D board
Beam Current Protector Circuit	D board IC901, D902, D918, D919, R923, R928, R932, R933, R934, R942, R944, R945, R947, R948, R951, T901 • Mounted D board

* Confirm one minute later turning on the power.

• HV Protector Circuit Check

(1) Confirm that the voltage between cathode of D913 and GND is more than 17.5 V DC.

(2) Using external DC Power Supply, apply the voltage shown below between cathode of D913 and GND, and confirm that the HV HOLD DOWN circuite works. (TV Rester disappears)
Standard voltage: Less than 23.40 V DC

• Beam Current Protector Circuite Check

(1) Hardware logic circuit

- Turn the POWER SW on, and check that the RASTER fades in.
- Connect a variable resistor (20 kΩ or more) and an ammeter in series between FBT pin ⑪ and – 15 V line (– side of C637). Decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuite works (TV Rester disappears). The current must be within the range shown below.
  Standard current: Less than 1.09 mA

(2) Software logic circuit

- Turn the POWER SW on, and check that the RASTER fades in.
- Short between + of C639 and GND.
- Connect a variable resistor (20 kΩ or more) and an ammeter in series between FBT pin ⑪ and – 15 V line (– side of C637). Decrease gradually the resistance of the variable resistor form maximum to minimum, and confirm that the Beam Current Protector Circuite works (TV Raster disappears). The current must be within the range shown below.
  Standard current: Less than 1.14 mA

SECTION 4
ADJUSTMENTS

• Landing Rough Adjustment

1. Enter the full white signal. (or the full black dots signal).
2. Adjust the contrast to the maximum.
3. Make the screen monogreen.

Note: Off the outputs from R ch and B ch of SG.

4. Reverse the DY, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Adjust the tilt of DY, and fix lightly with a clamp.

Note: "TILT" = 128

• Landing Fine Adjustment

1. Put the set inside the Helmholtz coil.
2. Input the single green signal and set the CONT control to MAX.

<Landing adjsutment luminance>

Landing adjsutment after 2 hours of aging by Landing adjustmet luminance.

- Landing ajdustment luminance
  : 1/2 of Landing between COOL and HOT
  (Reference: IK = 200 μA)
- Max luminance
  : 120 cg/m² IK = 650 μA

3. Demagnetize the metal part of the chassis with the hand degausser and coil degausser, and the CRT surface with the hand degausser.
   Input AC 230V to AC IN, turn on and off the power to perform auto degaussing. (Perform auto degaussing by setting "MON CON REG2"=152. Return to the original value after use.)
   Demagnetize the CRT surface with the hand degausser again.

(1) Adjust in a non-magnetic field. BV=55uT (SH Model).
(2) If adjusting in a magnetic fields, add the shift from the non-magnetic field in your estimation.

4. Attach the wobbling coil to the designated part of the CRT neck.
5. Pull the TLH plate nooked on stopper.
6. Attach the sensor of the landing adjustment unit on the CRT surface.
7. With landing checker adjsut DY position, punity, DY tilt, DY center and landing of hte 4 corners. Purity Adjsutment use 2-pole Mg on DY side.
8. Fasten DY with screw.

Note: Torque 22 ±2kg·cm (2.2 ± 0.2 Nm)
Perform auto degaussing.

<Specifications>
Adjust so that the green is within the specification given right.
4 corner adjust target : within ± 1

(μm)

0 ± 5	0 ± 7.5	0 ± 5
0 ± 5	0 ± 5	0 ± 5
0 ± 5	0 ± 7.5	0 ± 5

The red and blue must be within the specification given right with respect to the green.

(μm)

±7	±7	± /
±7	±5	±7
±7	±7	±7

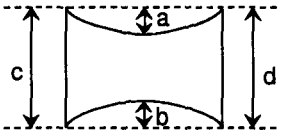
A difference between red and blue must be within the specification given right.

(μm)

10	10	10
10	7	10
10	10	10

* Adjustment and measurement should be made at the points one inch inside the fluorescent screen.

Fixing DY with wedges.

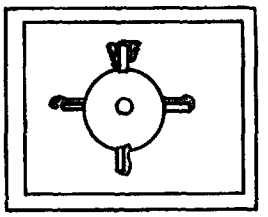


"a" and "b" must be equal, and "c" and "d" must be almost equal.

9. Adjust vertical swing with vertical pins, and also adjust horizontal swing so that horizontal keystone and vertical tilt are optimum, then fix with four wedges.
   (When fixing DY with wedges, insert wedges completely so that the DY does not shake.)

Note:
(1) Do not paste more than 2 magnets to one corner.
(2) Paste within 80 to 100 mm from the DY on the diagonal line of the magnet.

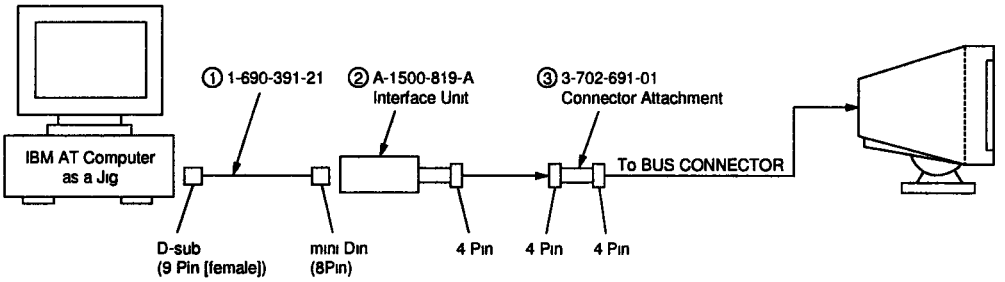
<How to drive in wedges>



Apply a locking agent to the upper wedges only.
In such a case, apply agent so that it enters both sides of wedge and also inside the DY.

10. Check the landing of each corner, and if they do not satisfy the specification, paste a Disk-Mg onto the funnel and adjust.
11. If using the magnet, be sure to demagnetize with the hand degausser and check.
12. Remove the sensor and wobbling coil.
13. Check that the DY is not tilting, and fix the purity Mg with a white pen.

Connect the communication cable of the computer to the connector located on the D board on the monitor. Run the service software and then follow the instruction.



*The parts above (① ~ ③) are necessary for DAS adjustment.

• Convergence Rough Adjustment

(1) Receive an image of the white crosshatch signals (white lines on black).
(2) Place the protrusions of the 6-fold poles magnet attached to the CRT neck upon each other. (Fig. 1)
(3) Make rough adjustment of the H and V direction convergence by using 4-fold poles magnet.

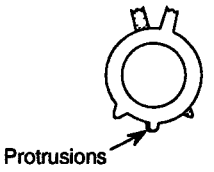


Fig. 1

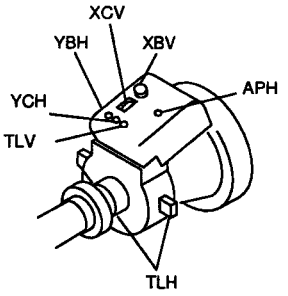
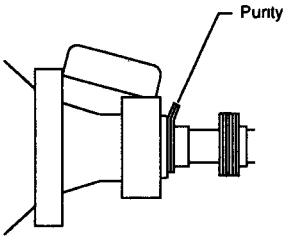
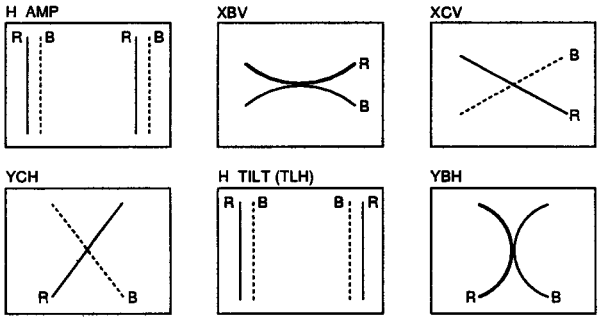


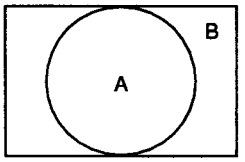
Fig. 3



* Set so that the protruding parts of the 2 magnet rings agree with each other.



• Convergence Specification

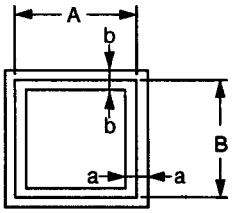


MODE	$f_H \geqq 60$ kHz	$f_H < 60$ kHz
A	0.24 mm	0.24 mm
B	0.24 mm	0.32 mm
C	0.32 mm	0.36 mm

• White Balance Adjustment Specification

(1) 9300K
x = 0.283 ± 0.005
y = 0.298 ± 0.005
(All White)
(2) 6500K
x = 0.313 ± 0.005
y = 0.329 ± 0.005
(All White)

• Vertical and Horizontal Position and Size Specification

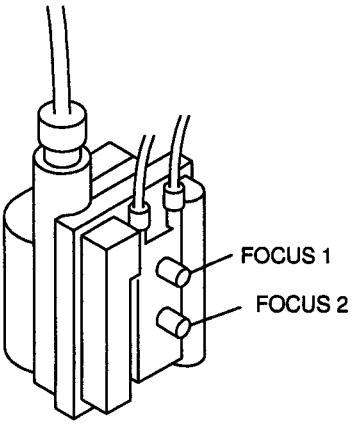


a ≦ 2.4 mm
b ≦ 2.4 mm

	4 : 3	5 : 4
A	312 mm	293 mm
B	234 mm	234 mm

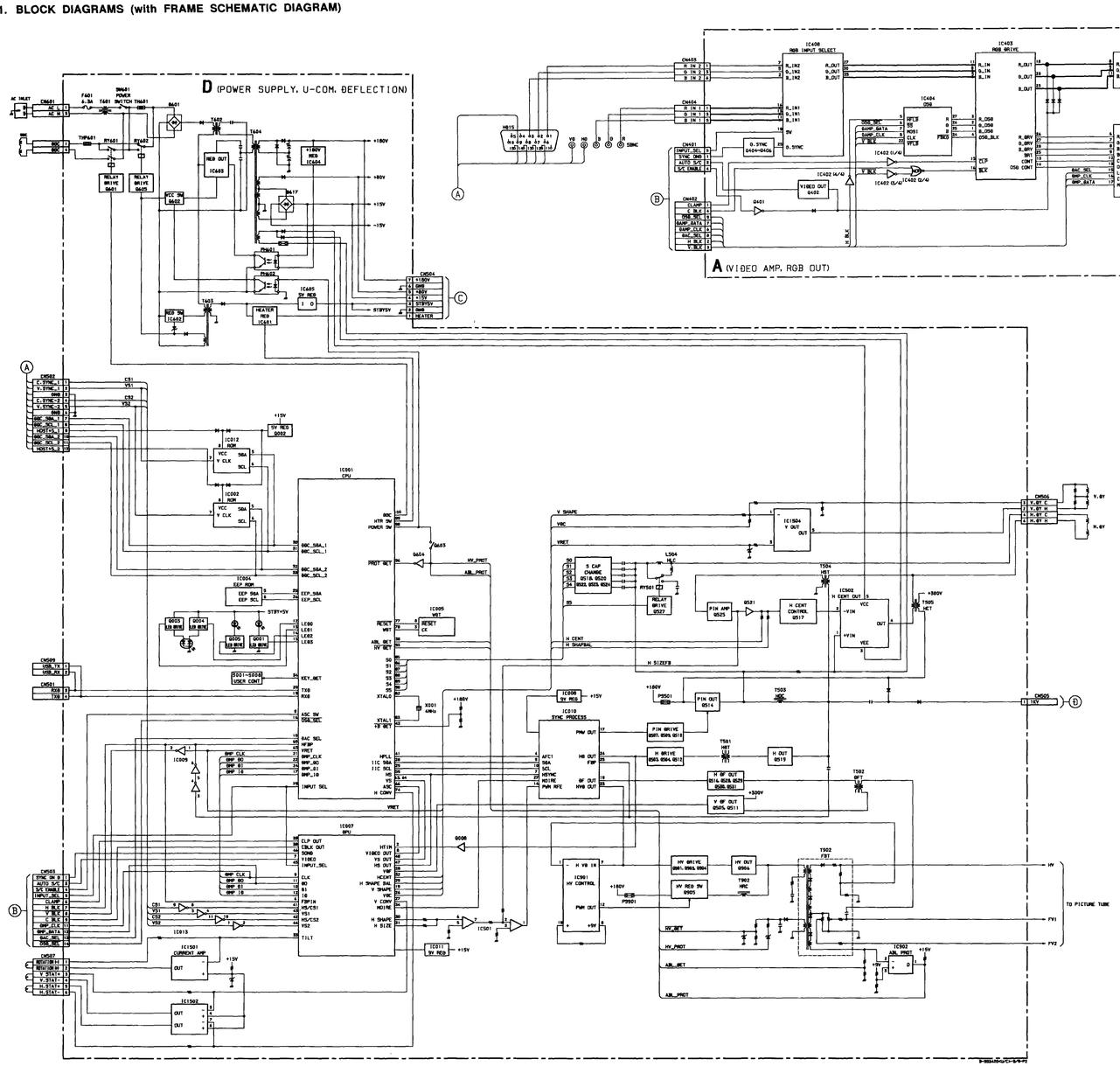
• Focus adjustment

Adjust the focus volume 1 and 2 for the optimum focus.
Standard: HMC, VMC ± 0.1 mm (In the center of screen)



SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAMS (with FRAME SCHEMATIC DIAGRAM)


D (POWER SUPPLY, U-COM, DEFLECTION)
A (VIDEO AMP, RGB OUT)
IC001 CPU
IC004 EEP ROM
IC007 SPU
IC008 5V REG
IC009 SYNC PROCESS
IC010 SYNC PROCESS
IC011 9V REG
IC012 ROM
IC501 CURRENT AMP
IC502
IC601 5V REG
IC602 HEATER REG
IC603 HOR OUT
IC604 REG
IC605 5V REG
IC606 12V REG
IC401 D/A CONVERTER
IC402 VIDEO OUT
IC403 RGB DRIVE
IC404 OSD
IC405 RGB INPUT SELECT
IC407 RGB OUT
IC408 RGB INPUT SELECT
CN001 KEY
CN002 USER CONT
CN003 SYNC IN
CN004 SYNC OUT
CN005 12V
CN006 Y, C
CN007 DEFLECTION
CN401 INPUT SEL
CN402 OSD
CN403 RGB
CN404 RGB
CN405 RGB
CN406 HEATER
CN407 HEATER
CN408 HEATER
CN425 12V
CN426 5V
CN501 HV
CN502 FBT
CN503 DEFLECTION
CN504 VIDEO
CN505 12V
CN506 Y, C
CN507 DEFLECTION
CN602 AC INLET
F401 6.3A
F601 6.3A
SW601 POWER SWITCH
TH601
RT601
RT602
THP601
T401
T402
T403
T404
T405
T406
T501
T502
T503
T504
T505
T601
T602
T603
T604
T605
T606
T607
T608
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T610
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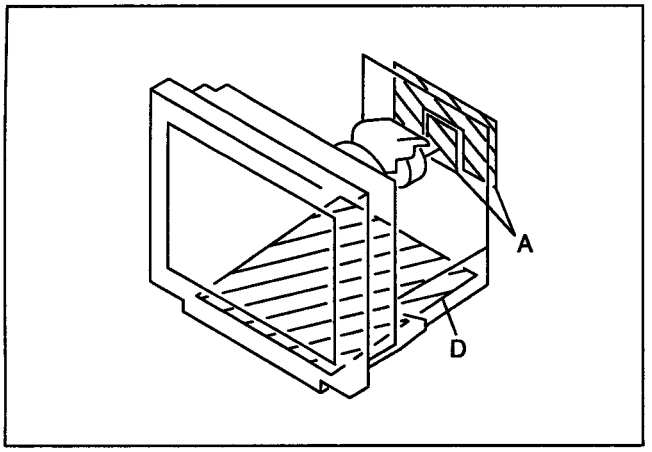
T628
T629
T630
T631
T632
T633
T634
T635
T636
T637
T638
T639
T640

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. (pF: μμF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP · 1/10 W)

- All resistors are in ohms
- nonflammable resistor.
- : fusible resistor
- △ : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- : earth-chassis
- The components identified by ⊠ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used
- When replacing components identified by ◪, make the necessary adjustments indicated. (See page 14)
- When replacing the part in below table, be sure to perform the related adjustment.

	Part replaced (⊠)
HV ADJ	RV901

	Part replaced (◪)	
HV Regulator Circuit	D board	IC901, R903, R922, T901 • Mounted D board
HV HOLD DOWN Circuit	D board	D913, D916, C923, R920, R927, T901 • Mounted D board
Beam Current Protector Circuit	D board	IC901, D902, D918, D919, R923, R928, R932, R933, R934, R942, R944, R945, R947, R948, R951, T901 • Mounted D board

- All voltages are in V
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- * . Can not be measured.
- Circled numbers are waveform references.
- ▬▬ : B + bus.
- ▬ ▬ · B – bus.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Terminal name of semiconductors in silk screen printed circuit (*)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector Base Emitter	
②	Transistor	▬	Collector Base Emitter	
③	Diode		Cathode Anode	
④	Diode	T	Cathode Anode (NC)	
⑤	Diode	▬	Cathode Anode (NC)	
⑥	Diode	T	Common Anode Cathode	
⑦	Diode	▬	Common Anode Cathode	
⑧	Diode	T	Common Anode Anode	
⑨	Diode	▬	Common Anode Anode	
⑩	Diode	T	Common Cathode Cathode	
⑪	Diode	▬	Common Cathode Cathode	
⑫	Transistor (FET)	▌	Drain Source Gate	
⑬	Transistor (FET)	▌	Drain Source Gate	
⑭	Transistor (FET)	▌	Source Drain Gate	
⑮	Transistor	▌	Emitter Collector Base	
–	Discrete semiconductor			

(Chip semiconductors that are not actually used are included) Ver 1.4

(1) Schematic Diagram of D Board

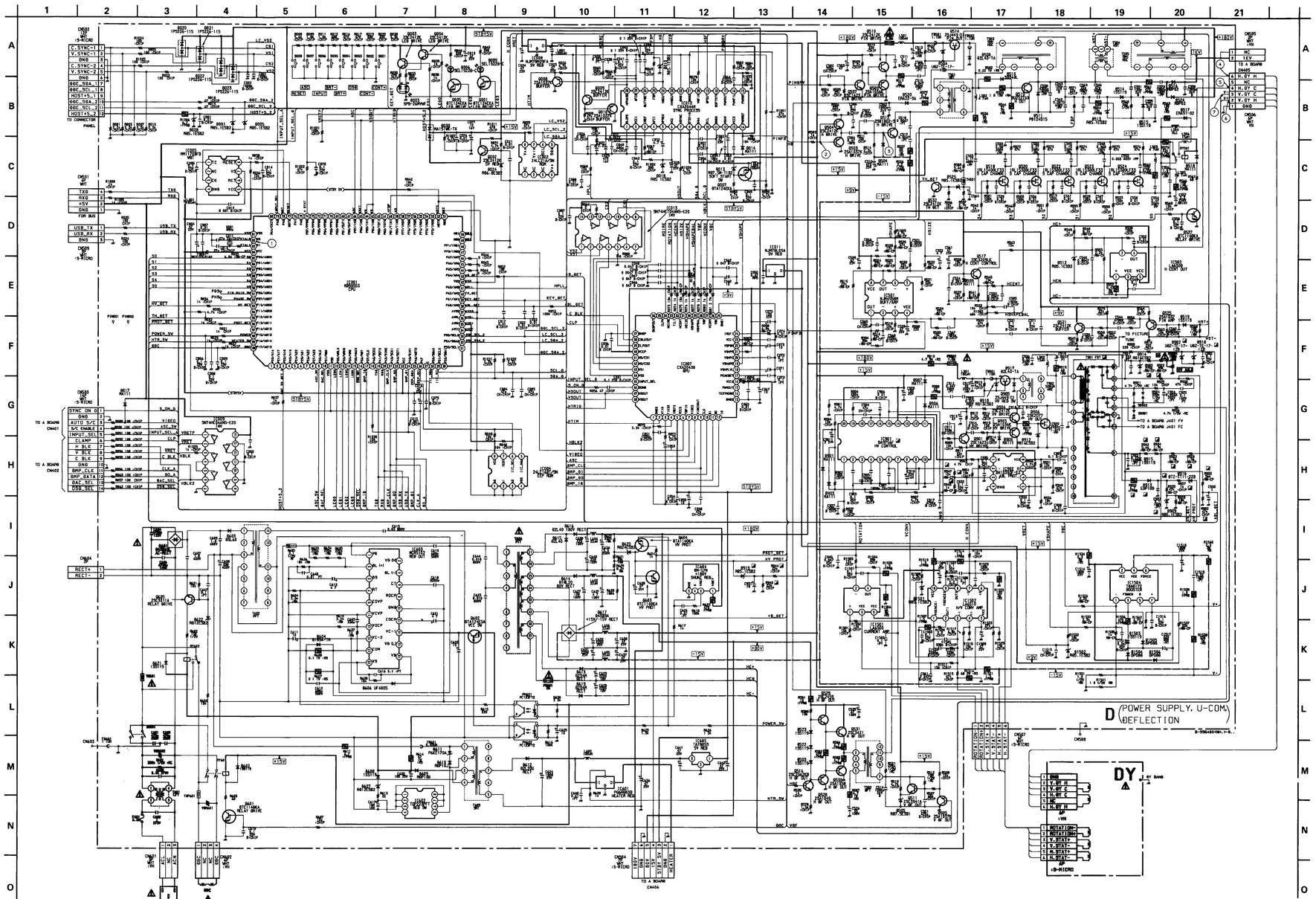
• D BOARD VOLTAGE LIST

Ref	Pin No	Voltage [V]
IC002	5	0.5
	6	3.5
	7	0
IC004	5	4.9
	6	4.9
	7	0
IC005	1	0.4
	3	0
	7	1.5
	8	4.9
IC009	1	−0.5
	2	0
	3	0
	4	4.4
	5	4.4
	6	0.5
	14	4.9
IC010	1	3.8
	3	*
	4	2.6
	5	2.8
	6	5.0
	7	0.3
	9	4.9
	10	4.9
	12	4.4
	14	4.3
	15	4.3
	16	5.0
	17	2.0
	18	−0.2
	19	5.2
	20	8.6
	23	1.2
	24	2.3
	25	0
	26	3.6
	27	4
	28	4.5
IC012	5	0.6
	6	3.5
	7	4.0
IC013	1	0
	2	5.0
	3	4.0
	4	0
	8	0.3
	9	3.8
	10	4.9
	11	0
IC501	1	4.3
	2	0
	3	0
	5	0
	6	0
	7	−9.8
IC502	1	7.6 1
	2	7.6 2
	4	7.5 6
IC601	IN	7.5
	OUT	6.2
	SW	4.9
IC602	4	5.8
	5	14.8 0
IC603	1	14.7 5
	3	3.9
	5	4.5
	6	2.2
	7	3.8
	9	0
	11	0
	12	0
	13	0
	14	16.3
	15	10.6
	17	0
	18	88.5
	19	78.2
IC604	1	17.9 8
	3	2.5
	4	12.6
IC901	1	9.0
	2	5.3
	4	0
	6	1.1
	7	1.1
	8	9.0
	12	0
	15	0.2
	16	7.8
	19	8.9
IC902	1	0.2
	2	6.9
	3	0
	5	0
	6	6.7
	7	0.2
IC1501	1	2.8
	2	2.8
	4	−1.3
IC1502	1	0.1
	2	0.1
	3	3.5
	4	3.5
	6	1.8
	7	1.8
	8	0.6
	9	0.6
IC1504	1	1.1
	3	−13.7
	5	0.1
	6	13.5
	7	1.1
PH601	1	14.7
	2	13.6
	3	0
	4	3.8
PH602	1	1.0
	2	0

Ref	Pin No	Voltage [V]
	3	0
	4	2.6
Q001	B	0
	C	3.7
Q002	B	5.5
	C	14.6
	E	4.8
Q003	B	0
	E	0.2
Q004	B	4.9
	E	4.2
Q005	B	4.9
	C	0.1
Q007	B	7.2
	C	0
Q008	B	2.3
	E	2.8
Q503	B	2.3
	E	2.3
Q504	B	2.3
	C	13.5
	E	2.3
Q505	B	3.5
	E	7.0
Q507	B	0.2
	C	8.4
Q509	B	8.4
	E	8.2
Q510	B	8.4
	C	14.2
	E	8.2
Q511	B	7.5
	C	*
	E	7.0
Q512	B	−14.3
	C	−0.1
	E	−14.3
Q514	G	175.8
	D	78.8
	S	180.1
Q516	B	5.2
	C	42.4
	E	4.6
Q517	B	4.9
	C	70.9
	E	4.4
Q518	G	0
	D	31.2
Q519	B	−0.9
	C	76.5
Q520	G	4.8
	D	0
Q521	B	4.3
	E	3.8
Q522	G	4.9
	D	0
Q523	G	4.8
	D	0
Q524	G	4.8
	D	0
Q525	B	4.8
	E	5.4
Q527	B	4.9
	C	0.4
Q528	B	42.4
	E	43.0
Q529	B	44.3
	C	74.3
	E	43.7
Q530	B	43.0
	E	43.3
Q531	B	43.7
	C	74.3
	E	43.4
Q532	B	0
	C	4.9
Q601	B	0
	C	14.7
Q602	B	2.7
	C	16.4
	E	16.8
Q603	B	0
	C	2.5
Q604	B	2.5
	C	0
	E	2.5
Q605	B	0.8
	C	0.1
	E	0
Q901	B	0.1
	C	8.8
Q903	B	7.8
	E	7.6
Q904	B	7.6
	C	14.0
	E	7.6
Q905	G	177.3
	D	60.2
	S	179.8
Q906	G	7.6
	D	60.5

• D BOARD WAVEFORMS

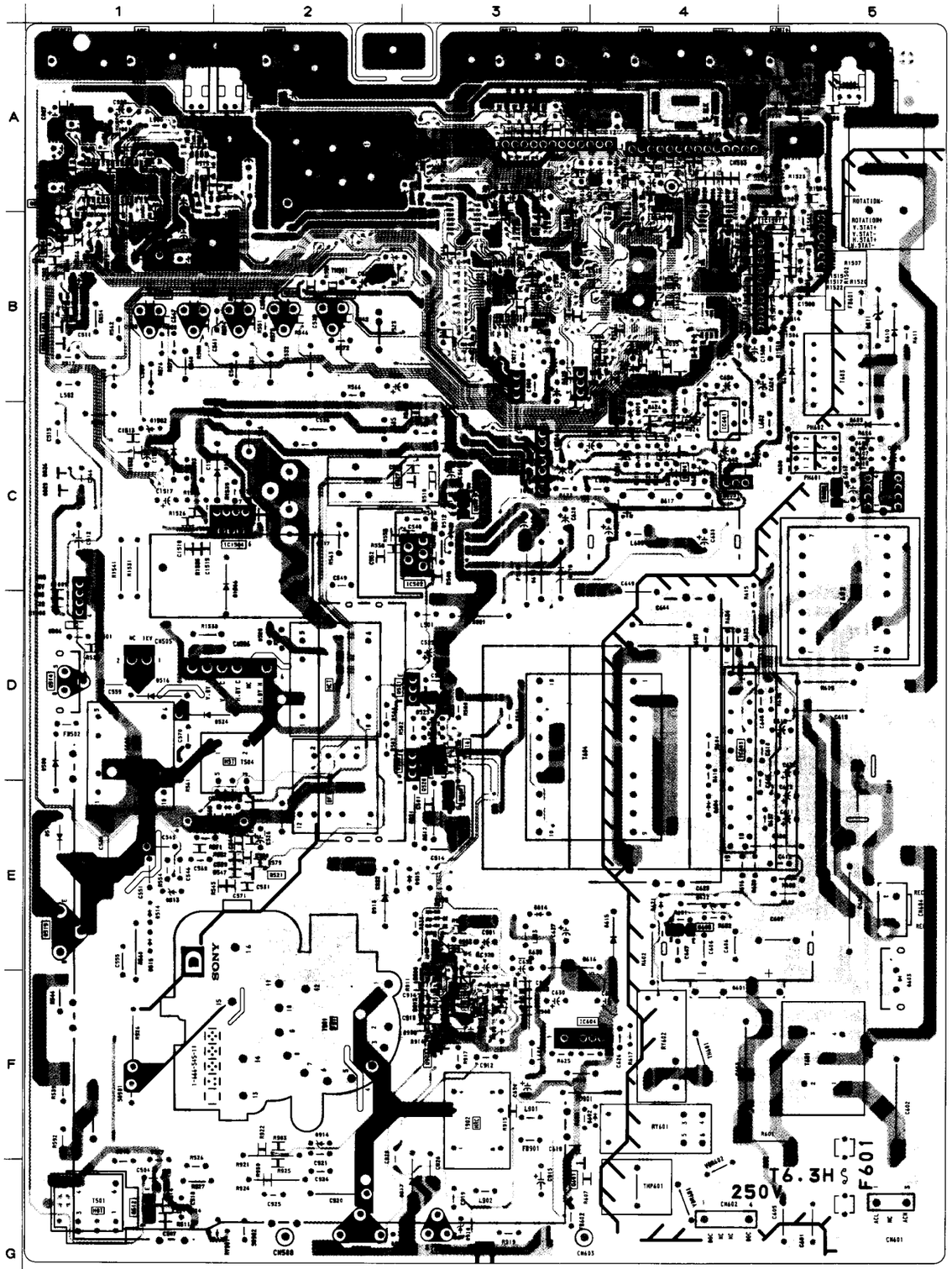
①	②	③	④	⑤	⑥	⑦
5.0 Vp-p (4MHz)	4.5 Vp-p (H)	2.0 Vp-p (H)	600 Vp-p (H)	45.0 Vp-p (H)	45.0 Vp-p (V)	1.0 Vp-p (V)


D (POWER SUPPLY, U-COM, DEFLECTION)
DY
IC1501 LA6510 SMPS CONTROL
IC1502 LA6510 VERTICAL DEFLECTION
IC1504 LA6510 HORIZONTAL DEFLECTION
IC901 MB89625 CPU
IC902 CXA2069AS SIF
IC603 CXA2069AS SIF
IC601 STV9379 VIDEO PROCESSOR
IC602 STV9379 VIDEO PROCESSOR
IC604 TDA4856 SYNC PROCESSOR
IC002 M24C08 EEPROM
IC004 M24C08 EEPROM
IC005 M24C08 EEPROM
IC009 M24C08 EEPROM
IC010 M24C08 EEPROM
IC012 M24C08 EEPROM
IC013 M24C08 EEPROM
IC501 M24C08 EEPROM
IC502 M24C08 EEPROM
IC801 M24C08 EEPROM
IC902 M24C08 EEPROM
IC1501 M24C08 EEPROM
IC1502 M24C08 EEPROM
IC1504 M24C08 EEPROM
IC603 TDA4601 DEFLECTION
IC604 TDA4601 DEFLECTION
IC1501 TDA4605-2 SMPS
IC1502 TDA8172 VERTICAL DEFLECTION
IC1504 TDA8172

GDM-200PS/200PST

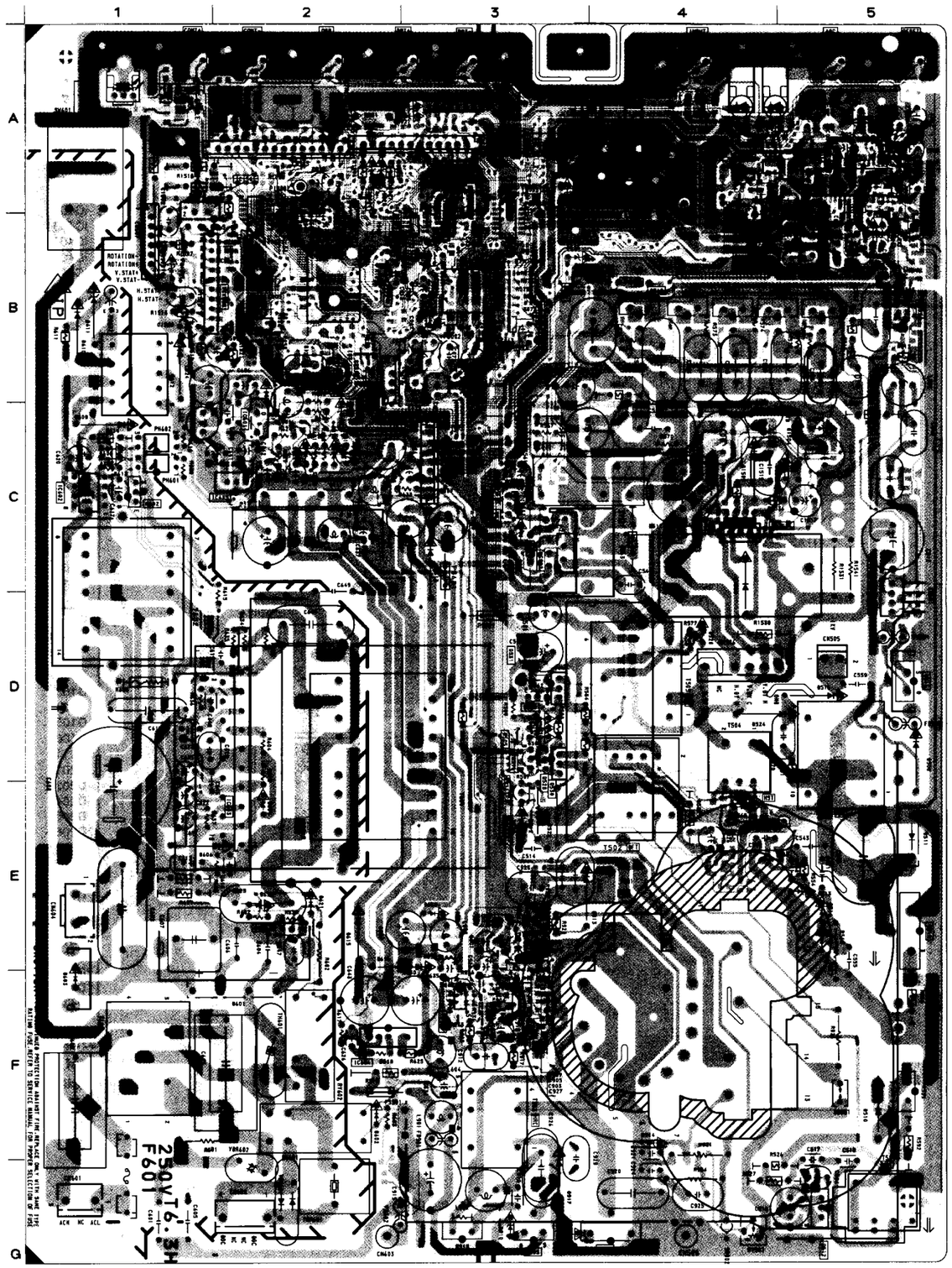
D [POWER SUPPLY, U-COM, DEFLECTION]

— D BOARD (Conductor Side) —



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

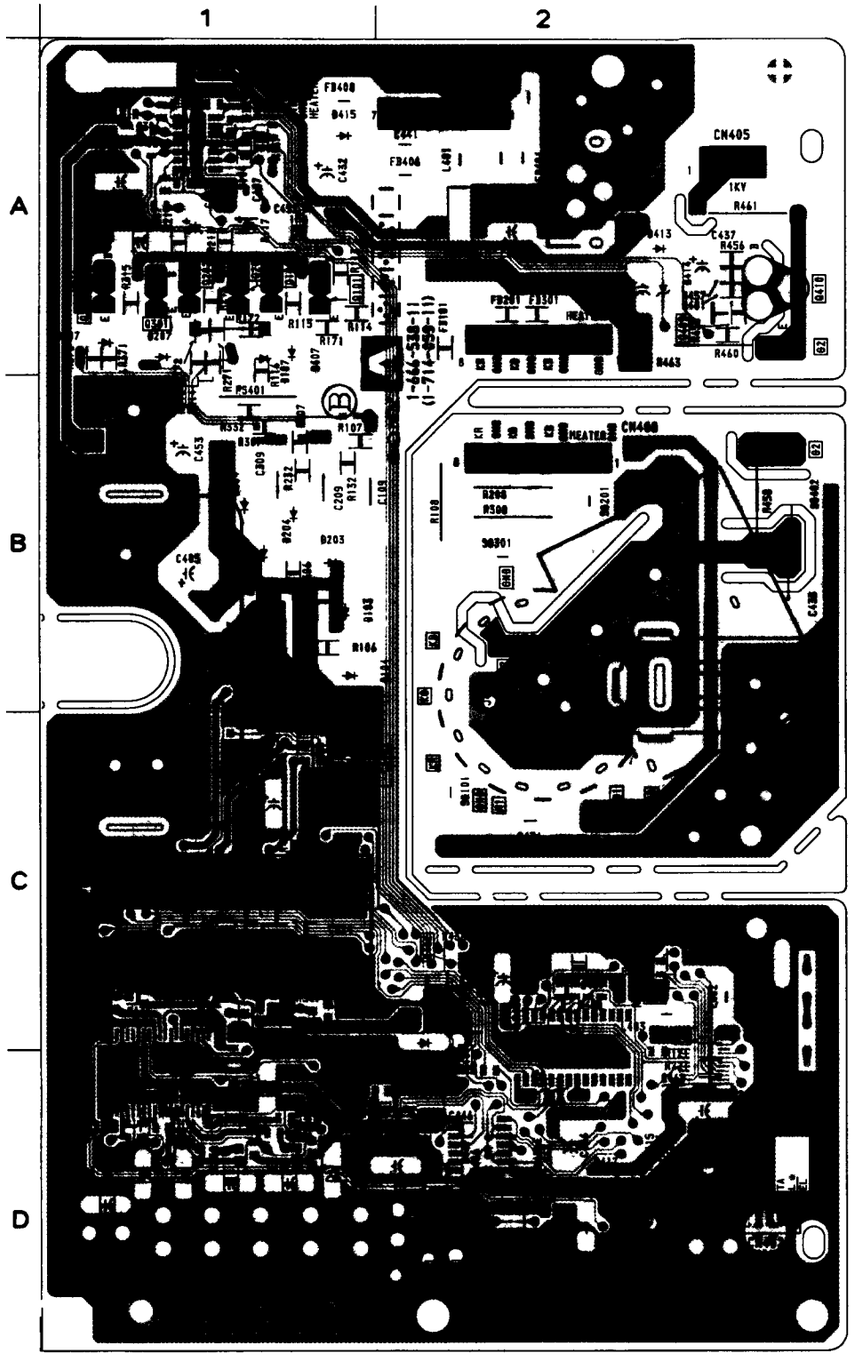
— D BOARD (Component Side) —



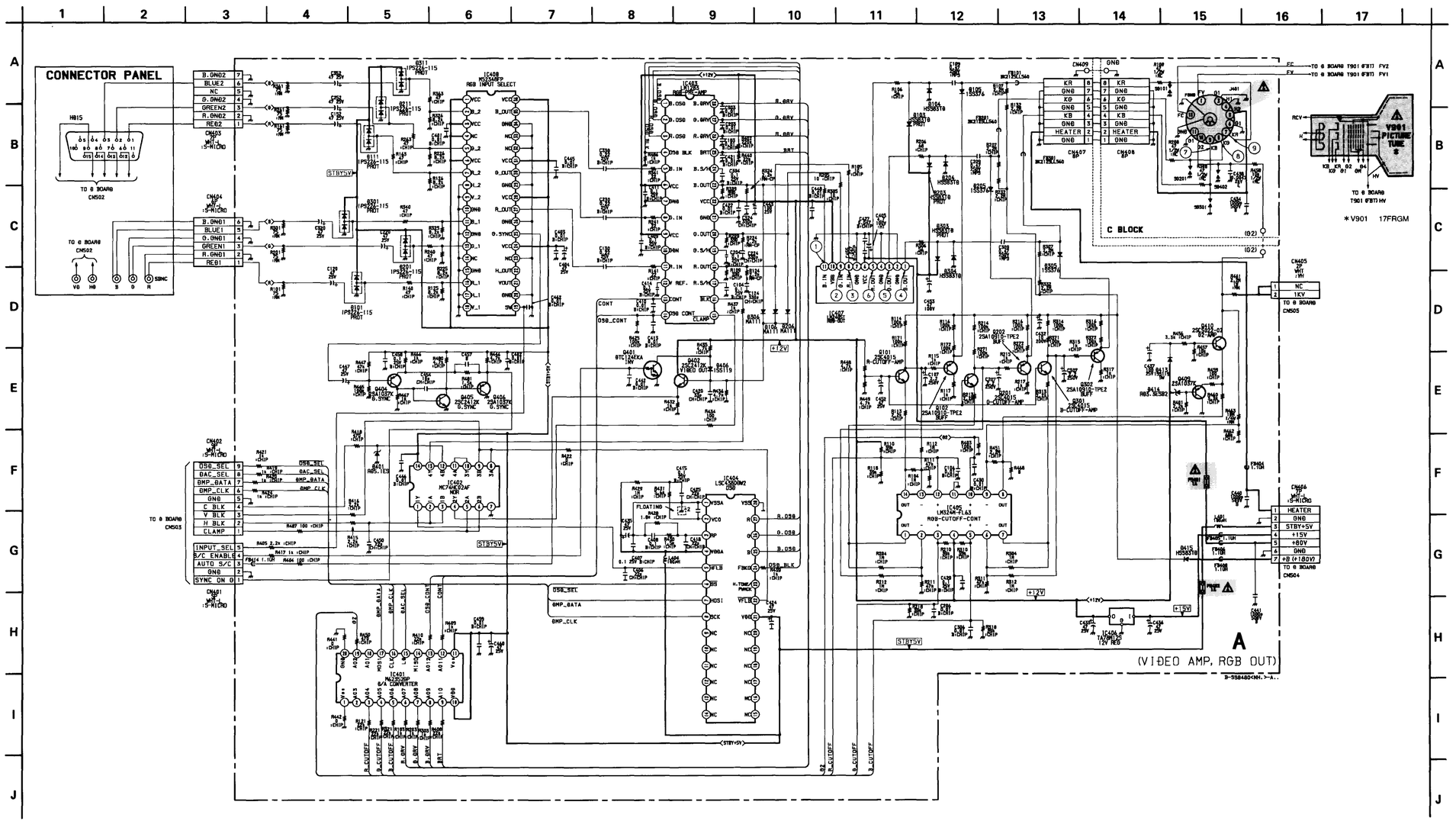
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

A [VIDEO AMP RGB OUT]

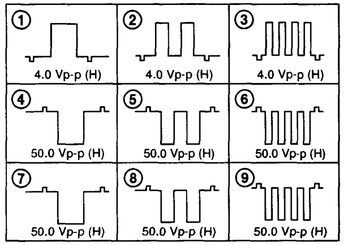
— A BOARD (Conductor Side) —



(2) Schematic Diagrams of A Board



• A BOARD WAVEFORMS

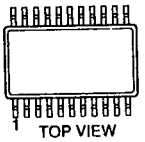


• A BOARD VOLTAGE LIST

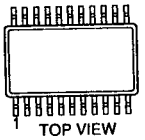
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC403	1	1.6	Q202	B	91.7
	2	1.6		C	0.6
	3	1.6		E	92.3
	4	0			
	5	2.2	Q301	B	5.8
	8	2.2		C	92.1
	11	2.2		E	5.2
	12	2			
	13	1.7	Q302	B	92.1
	14	1.5		C	0.6
	15	4.8		E	92.7
	16	4			
	17	6.7	Q401	B	0
	18	2.2		C	6.1
	19	6.8			
	20	2.1	Q402	B	5.5
	23	2.1		E	4.8
	24	6.8			
	25	1.5	Q404	B	3.5
	26	3.4		C	0.6
	27	3.5		E	4.1
	28	3.4			
			Q405	B	0.6
IC407	1	50.6		C	3.3
	3	50.6			
	5	50.6	Q406	B	3.3
	8	2.1		E	3.6
	9	2.1			
	11	2.1	Q409	B	8.3
				E	7.8
Q101	B	5.8			
	C	93.3	Q410	B	8.3
	E	5.2		C	463
				E	7.8
Q102	B	93.3			
	C	0.6	J401	KB	70
	E	94		KG	70
				KR	70
Q201	B	5.8		G2	462
	C	91.7		H2	6.2
	E	5.2			

5-4. SEMICONDUCTORS

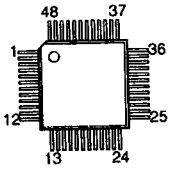
BA10393F
NJM4558M
µPC4558G2
24LC16BT/SN
24LC21A/SN



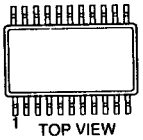
BA9756F-E2
M62352GP-75E
M62352GP-75ED



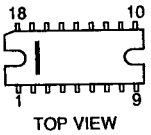
CAX2043Q



CXA2044M
LSC4380DW2



DM-57



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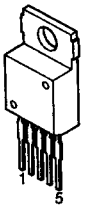

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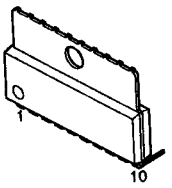

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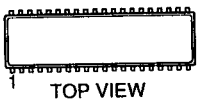

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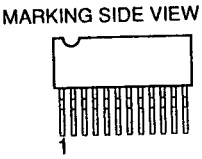

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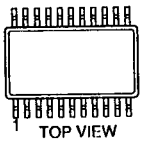

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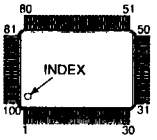

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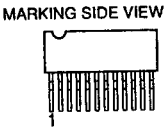

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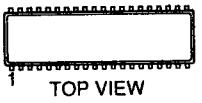
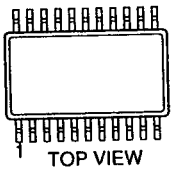


M52348FP



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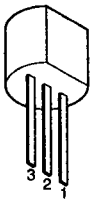

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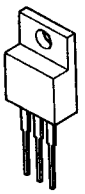

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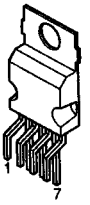

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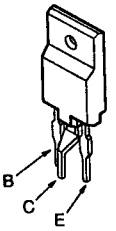

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2SA1036K-T-146-Q
2SA1037K-T-146-QR
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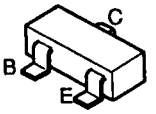
2SC2412K-T-146-QR



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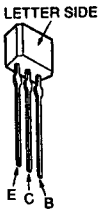

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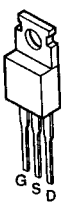

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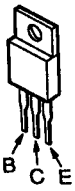

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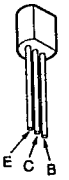

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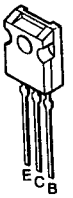

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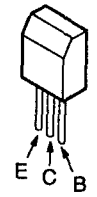

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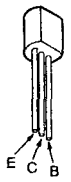

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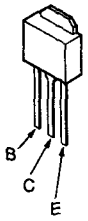

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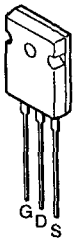

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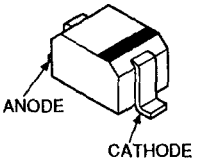
DTZ-TT11-22B
MA111
RD12SB2
UDZ-TE-17-12B
UDZ-TE-17-13B



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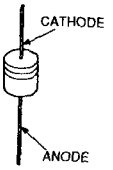
RD13ES-B2
RD16ES-B2
RD16ES-B3
RD24ES-B2
RE24ES-B3
RD3.3ES-B2
RD5.1ES-B2
RD6.8ES-B1
RD7.5ES-B1
1SS119-25TD
1SS119-25



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ERA22-08
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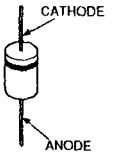

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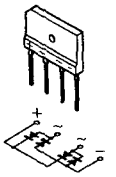
D4SBS4-F
D4SB60L



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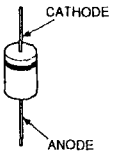

D5L60

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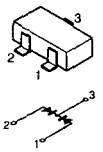
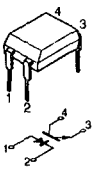


PC123F2
PC123FY2



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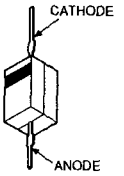

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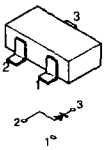
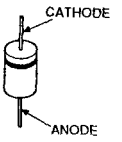


SB340



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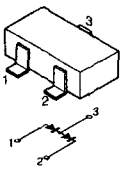

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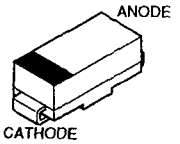
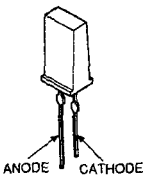
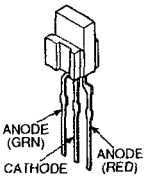


SEL1922D-C



SPB-26MVWF



SECTION 6
EXPLODED VIEWS

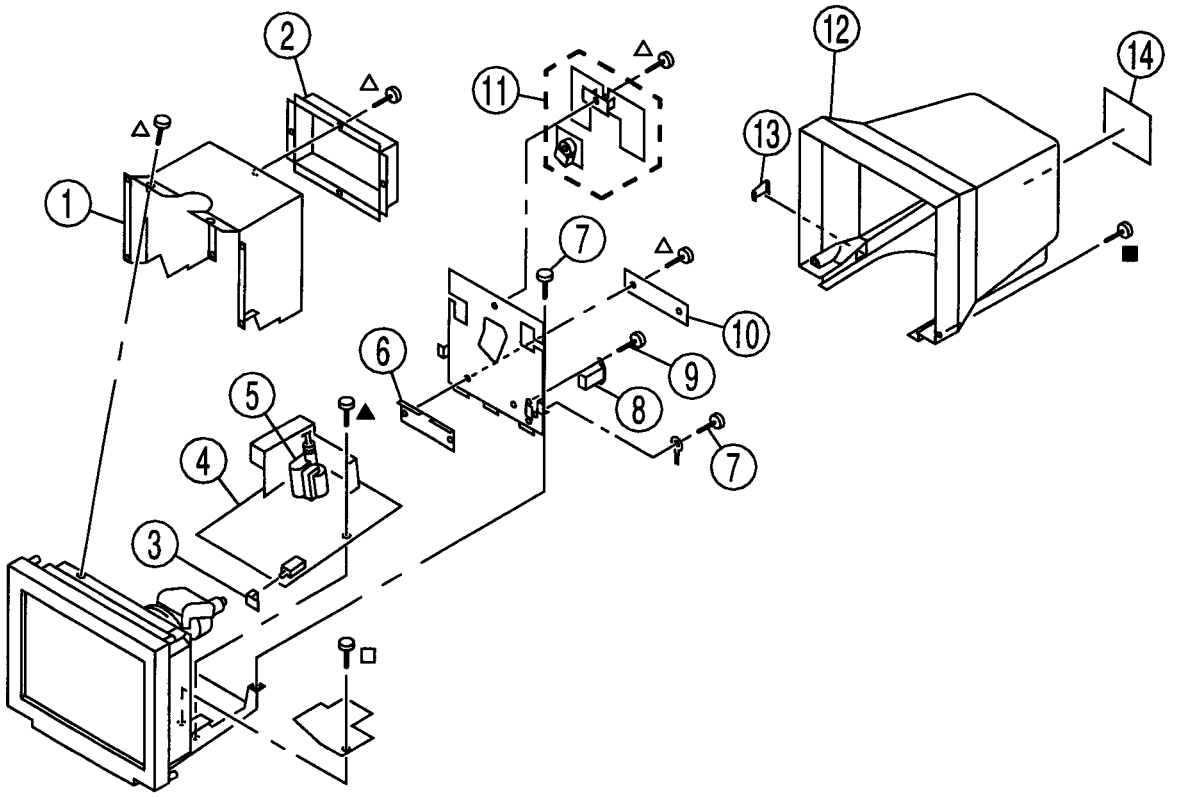
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

6-1. CHASSIS

▲ 7-685-647-79 +BVTP 3X10
■ 7-685-663-71 +BVTP 4X16
△ 7-685-872-09 +BVTT 3X8
□ 7-685-881-09 +BVTT 4X8



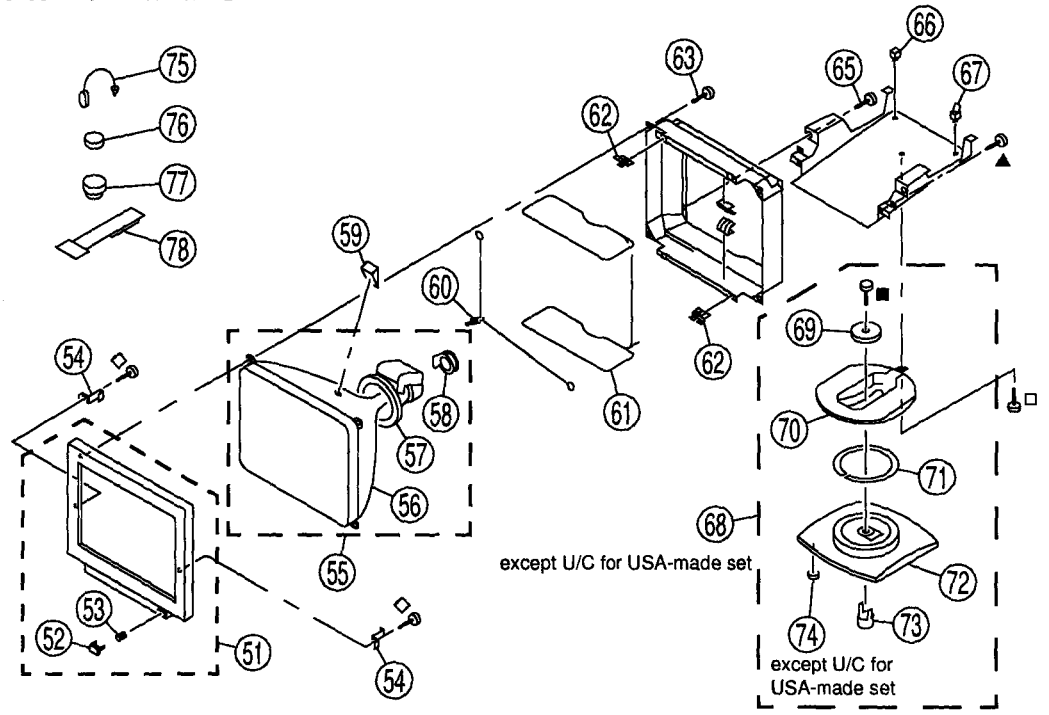
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*X-4034-844-1	SHIELD ASSY, EMI	
2	*4-060-406-01	COVER, VIDEO	
3	*4-394-972-21	CAP, POWER	
4	*8-933-249-00	D BOARD, COMPLETE	
5	⚠X-4035-177-1	TRANSFORMER ASSY, FLYBACK (NX-4401//J1M4)	
6	1-694-347-11	TERMINAL BOARD ASSY, I/O	
7	4-389-025-01	SCREW (M4) (EXT TOOTH WASHER)	
8	⚠1-251-382-22	INLET, AC 3P(WITH NOISE FILTE)	
9	4-052-345-01	SCREW, (3X8) (+K), TAPPING	
10	4-060-368-01	SHEET, CONNECTOR	
11	*8-933-248-00	A BOARD, COMPLETE	
12	4-060-394-12	CABINET [U/C for Japan-made set, SH model]	
12	4-060-520-01	CABINET [AEP, UK model]	
12	4-060-696-01	CABINET [U/C for USA-made set]	
13	4-060-401-11	COVER, ECS [U/C for Japan-made set, SH model]	
13	4-060-528-01	COVER, ECS [AEP, UK model]	
13	4-060-704-01	COVER, ECS [U/C for USA-made set]	
14	*4-061-169-01	LABEL, INFORMATION [U/C for Japan-made set, SH model]	
14	*4-061-169-11	LABEL, INFORMATION [U/C for USA-made set]	
14	*4-061-170-01	LABEL, INFORMATIN [AEP, UK model]	

6-2. PICTURE TUBE

▲ 7-685-647-79 +BVTP 3X10
■ 7-685-663-71 +BVTP 4X16
□ 7-685-881-09 +BVTT 4X8
◇ 7-685-661-79 +P 4X12

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

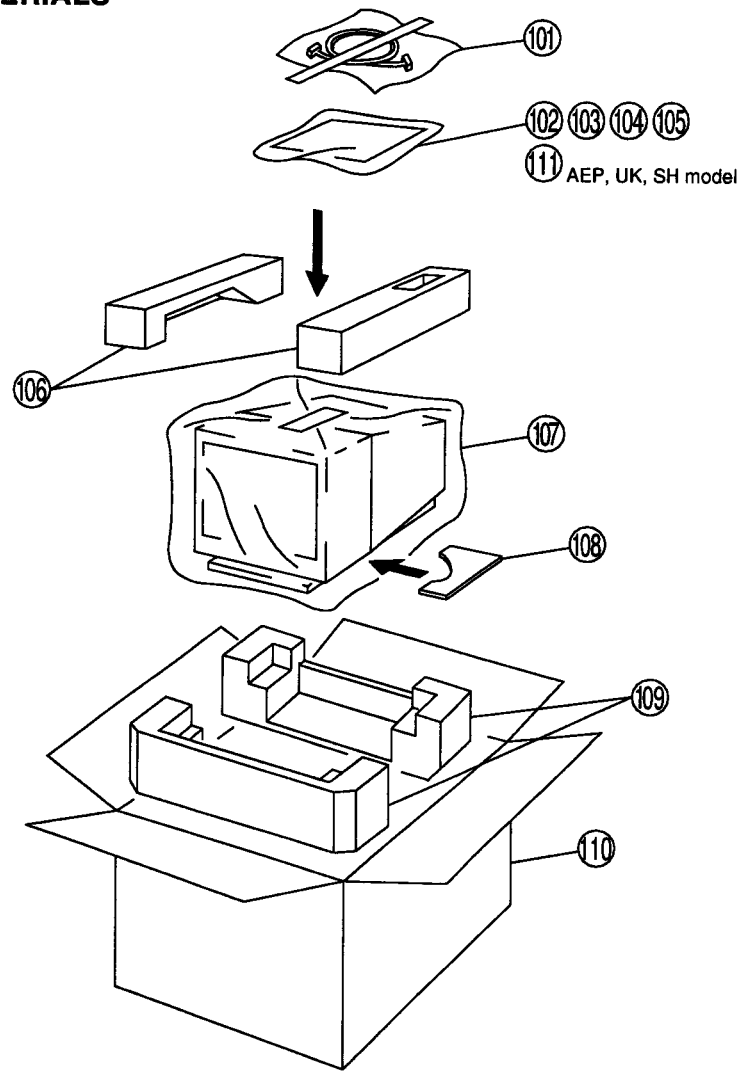


REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4034-845-1	BEZEL ASSY [U/C for Japan-made set, SH model]	52, 53
51	X-4034-866-1	BEZEL ASSY [AEP, UK model]	52, 53
51	X-4034-887-1	BEZEL ASSY [U/C for USA-made set]	52, 53
52	4-060-420-01	BUTTON, POWER [U/C for Japan-made set, SH model]	
52	4-060-523-01	BUTTON, POWER [AEP, UK model]	
52	4-060-699-01	BUTTON, POWER [U/C for USA-made set]	
53	3-653-339-21	SPRING, COMPRESSION [U/C for USA-made set]	
53	3-653-339-01	SPRING, COMPRESSION [U/C for Japan-made set, SH model]	
53	3-653-339-11	SPRING, COMPRESSIN [AEP, UK model]	
54	4-052-459-11	HOOK (17) [U/C for USA-made set]	
54	4-052-459-01	HOOK (17) [except U/C for USA-made set]	
55	⚠8-738-728-80	ITC ASSY (17FRFM-RS1) [SH model]	
55	⚠8-738-733-81	ITC ASSY (17FRFM-R1) [except SH model]	56-58
56	⚠8-738-728-05	PICTURE TUBE(17FRFM) [SH model]	
56	⚠8-738-793-05	PICTURE TUBE(17FRGM) [except SH model]	
57	⚠8-451-488-11	DEFLECTION YOKE (Y17FRJ-M)	
58	⚠1-452-923-21	NECK ASSEMBLY	
59	4-040-897-01	SPACER, DY [U/C for USA-made set]	
59	4-050-492-01	SPACER, DY [except U/C for USA-made set]	
60	*4-047-316-01	SPRING, TENSION	
61	⚠1-416-282-41	COIL, DEMAGNETIC	
62	*4-056-260-01	SPACER, DEGAUSSER COIL	
63	4-203-648-01	SCREW (5), SELF TAPPING [AEP, UK model]	
63	4-365-808-01	SCREW (5), TAPPING [U/C, SH model]	
65	4-389-025-01	SCREW (M4) (EXT TOOTH WASHER)	
66	*4-382-848-01	HOLDER, PRINTED CIRCUIT BOARD	
67	*3-703-141-00	HOLDER, PRINTED CIRCUIT BOARD	
68	X-4034-847-1	STAND ASSY [U/C for Japan-made set, SH model]	69-74
68	X-4034-868-1	STAND ASSY [AEP, UK model]	69-74
69	4-060-340-01	STOPPER (A) [U/C for Japan-made set, SH model]	
69	4-060-425-01	STOPPER (A) [AEP, UK model]	
69	4-060-706-01	STOPPER (A) [U/C for USA-made set]	
70	4-060-396-11	SLIDER [U/C for Japan-made set, SH model]	
70	4-060-522-01	SLIDER [AEP, UK model]	
70	*4-060-698-11	SLIDER [U/C for USA-made set]	
71	4-060-339-01	RING, TILT SWIVEL [U/C for Japan-made set, SH model]	
71	4-060-643-01	RING, TILT SWIVEL [APE, UK model]	
71	4-060-705-01	RING, TILT SWIVEL [U/C for USA-made set]	
72	X-4034-851-1	BASE ASSY, STAND [U/C for Japan-made set, SH model]	74
72	X-4034-869-1	STAND BASE ASSY [AEP, UK model]	74
72	X-4034-890-1	BASE ASSY, STAND [U/C for USA-made set]	
73	4-041-621-21	STOPPER (B) [U/C for USA-made set]	
73	4-041-621-01	STOPPER (B) [except U/C for USA-made set]	
74	4-047-474-01	FOOT, RUBBER [except U/C for USA-made set]	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-032-00	MAGNET,DISC ; 10 mmϕ	
77	1-452-094-00	MAGNET, ROTATABLE DISK; 15mmϕ	
78	4-059-493-01	PERMALLOY (90), CONV.CORRECT	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

6-3. PACKING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	1-777-743-11	CABLE ASSY (15PDSUBX2CONNECTOR)	
102	1-573-983-31	ADAPTOR, CONVERSION (for Macintosh)	
~~103~~	⚠ ~~1-558-481-11~~	~~CORD SET, POWER (10A/250V)~~	~~[SH model]~~
~~103~~	⚠ ~~1-765-581-11~~	~~CORD SET, POEWR SUPPLY (10A/250V)~~	~~[AEP model]~~
~~103~~	⚠ ~~1-765-718-11~~	~~CORD SET, POWER (10A/125V)~~	~~[U/C model]~~
~~103~~	⚠ ~~1-775-706-11~~	~~CORD SET, POWER (10A/250V)~~	~~[UK model]~~
104	3-861-050-11	MANUAL, INSTRUCTION	[U/C for Japan-made set, SH model]
104	3-861-050-21	MANUAL, INSTRUCTION	[U/C for USA-made set]
104	3-861-051-11	MANUAL, INSTRUCTION	[AEP, UK model]
105	4-056-722-11	MONITOR INFORMATION DISK (WINDOWS 95, 3.5")	[U/C for USA-made set]
105	4-056-722-01	MONITOR INFORMATION DISK (WINDOWS 95, 3.5")	[except U/C for USA-made set]
106	*4-060-582-01	CUSHION (UPPER) (ASSY)	[AEP, UK model]
106	*4-060-574-01	CUSHION (UPPER) (ASSY)	[U/C for USA-made set]
106	*4-060-006-01	CUSHION (UPPER) (ASSY)	[U/C for Japan-made set, SH model]
107	*4-041-927-11	BAG, POLYETHYLENE [U/C, SH model]	
107	*4-060-490-01	BAG, POLYETHYLENE [AEP, UK model]	
108	*4-060-581-01	PAD FOR TILT FIXING	[U/C for USA-made set]
108	*4-060-012-01	PAD FOR TILT FIXING	[U/C for Japan-made set, SH model]
108	*4-060-588-01	PAD FOR TILT FIXING [AEP, UK mdoel]	
109	*4-060-575-01	CUSHION (LOWER) (ASSY)	[U/C for USA-made set]
109	*4-060-007-01	CUSHION (LOWER) (ASSY)	[U/C for Japan-made set, SH model]
109	*4-060-583-01	CUSHION (LOWER) (ASSY)	[AEP, UK model]
110	*4-060-589-01	INDIVIDUAL CARTON	[U/C for Japan-made set, SH model]
110	*4-060-590-01	INDIVIDUAL CARTON	[U/C for USA-made set]
110	*4-060-591-01	INDIVIDUAL CARTON [AEP, UK mdoel]	
111	1-774-648-21	ADAPTOR, CONVERSION (for VGA)	[AEP, UK, SH model]

SECTION 7
ELECTRICAL PARTS LIST

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NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  MF: μF
- COILS
  UH: μH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*8-933-248-00	A BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+) (IC406, IC407)			
		<CAPACITOR>			
C103	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C104	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C106	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C107	1-107-649-11	ELECT 2.2MF	20%	250V	
C109	1-117-450-11	FILM 0.47MF	10%	250V	
C120	1-104-664-11	ELECT 47MF	20%	25V	
C124	1-163-263-11	CERAMIC CHIP 330PF	5%	50V	
C130	1-164-161-11	CERAMIC CHIP 0.22MF	10%	25V	
C152	1-104-664-11	ELECT 47MF	20%	25V	
C203	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C204	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C206	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C207	1-107-649-11	ELECT 2.2MF	20%	250V	
C209	1-117-450-11	FILM 0.47MF	10%	250V	
C220	1-104-664-11	ELECT 47MF	20%	25V	
C224	1-163-263-11	CERAMIC CHIP 330PF	5%	50V	
C230	1-164-161-11	CERAMIC CHIP 0.22MF	10%	25V	
C252	1-104-664-11	ELECT 47MF	20%	25V	
C303	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C304	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C306	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C307	1-107-649-11	ELECT 2.2MF	20%	250V	
C309	1-117-450-11	FILM 0.47MF	10%	250V	
C320	1-104-664-11	ELECT 47MF	20%	25V	
C324	1-163-263-11	CERAMIC CHIP 330PF	5%	50V	
C330	1-164-161-11	CERAMIC CHIP 0.22MF	10%	25V	
C352	1-104-664-11	ELECT 47MF	20%	25V	
C401	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C402	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C403	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C404	1-104-664-11	ELECT 47MF	20%	25V	
C405	1-107-928-11	ELECT 4.7MF	20%	100V	
C406	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C407	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C408	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C409	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C410	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C411	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C413	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C414	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C415	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C418	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C420	1-163-239-11	CERAMIC CHIP 33PF	5%	50V	
C421	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C422	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C424	1-104-664-11	ELECT 47MF	20%	25V	
C425	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C427	1-104-760-11	CERAMIC CHIP 0.047MF	10%	50V	
C429	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C430	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C432	1-107-652-11	ELECT 10MF	20%	200V	
C433	1-104-664-11	ELECT 47MF	20%	25V	
C434	1-162-318-11	CERAMIC 0.001MF	10%	500V	
C435	1-104-664-11	ELECT 47MF	20%	25V	
C436	1-104-664-11	ELECT 47MF	20%	25V	
C437	1-104-665-11	ELECT 100MF	20%	25V	
C438	1-162-114-00	CERAMIC 0.0047MF		2KV	
C440	1-162-318-11	CERAMIC 0.001MF	10%	500V	
C441	1-162-318-11	CERAMIC 0.001MF	10%	500V	
C442	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C443	1-104-665-11	ELECT 100MF	20%	25V	
C445	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C446	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C447	1-104-664-11	ELECT 47MF	20%	25V	
C448	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C450	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C452	1-104-664-11	ELECT 47MF	20%	25V	
C453	1-128-562-11	ELECT 47MF	20%	100V	
C454	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V	
C455	1-104-760-11	CERAMIC CHIP 0.047MF	10%	50V	
C458	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C459	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C460	1-104-664-11	ELECT 47MF	20%	25V	
C462	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
		<CONNECTOR>			
CN401	*1-564-520-11	PLUG, CONNECTOR 5P			
CN402	1-564-524-11	PLUG, CONNECTOR 9P			

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Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité Ne les remplacer que par une piéce portant le numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety Replace only with part number specified

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN403*	1-564-522-11	PLUG, CONNECTOR 7P	
CN404*	1-564-521-11	PLUG, CONNECTOR 6P	
CN405*	1-766-179-11	PIN, CONNECTOR (PC BOARD) 2P	
CN406*	1-564-522-11	PLUG, CONNECTOR 7P	
CN409	1-695-915-11	TAB (CONTACT)	
		<DIODE>	
D101	8-719-062-51	DIODE 1PS226-115	
D103	8-719-051-85	DIODE HSS83TD	
D104	8-719-051-85	DIODE HSS83TD	
D105	8-719-052-12	DIODE 1SS376TE-17	
D106	8-719-404-49	DIODE MA111	
D111	8-719-062-51	DIODE 1PS226-115	
D201	8-719-062-51	DIODE 1PS226-115	
D203	8-719-051-85	DIODE HSS83TD	
D204	8-719-051-85	DIODE HSS83TD	
D205	8-719-052-12	DIODE 1SS376TE-17	
D206	8-719-404-49	DIODE MA111	
D211	8-719-062-51	DIODE 1PS226-115	
D301	8-719-062-51	DIODE 1PS226-115	
D303	8-719-051-85	DIODE HSS83TD	
D304	8-719-051-85	DIODE HSS83TD	
D305	8-719-052-12	DIODE 1SS376TE-17	
D306	8-719-404-49	DIODE MA111	
D311	8-719-062-51	DIODE 1PS226-115	
D401	8-719-109-85	ZENER DIODE RD5.1ESB2	
D406	8-719-911-19	DIODE 1SS119-25	
D413	8-719-911-19	DIODE 1SS119-25	
D414	8-719-109-66	ZENER DIODE RD3.3ESB2	
D415	8-719-051-85	DIODE HSS83TD	
		<FERRITE BEAD>	
FB101	1-500-419-21	INDUCTOR, FERRITE BEAD	
FB201	1-500-419-21	INDUCTOR, FERRITE BEAD	
FB301	1-500-419-21	INDUCTOR, FERRITE BEAD	
FB404	1-412-911-31	INDUCTOR, FERRITE BEAD	
FB405	1-412-911-31	INDUCTOR, FERRITE BEAD	
FB406	1-412-911-31	INDUCTOR, FERRITE BEAD	
FB408	1-412-911-31	INDUCTOR, FERRITE BEAD	
FB414	1-412-911-31	INDUCTOR, FERRITE BEAD	
		<IC>	
IC401	8-759-635-27	IC M62352GP-75E	
IC402	8-759-925-72	IC SN74HC02ANS	
IC403	8-759-445-85	IC LM1283	
IC404	8-759-468-91	IC LSC4380DW2	
IC405	8-759-502-82	IC LM324M	
IC406	8-759-263-43	IC TA78M12S	
IC407	8-759-435-33	IC LM2405T	
IC408	8-759-445-41	IC M52348FP-TP	
		<JACK>	
J401	⚠1-251-598-11	SOCKET, PICTURE TUBE	
		<COIL>	
L401	1-412-537-31	INDUCTOR 100UH	
L404	1-408-421-00	INDUCTOR 100UH	
		<IC LINK>	
PS401	⚠1-533-590-31	LINK, IC (1A/90V AC, 60V DC)	
PS402	⚠1-532-637-00	LINK, IC (1A/150V)	
		<TRANSISTOR>	
Q101	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q102	8-729-200-17	TRANSISTOR 2SA1091-O	
Q201	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q202	8-729-200-17	TRANSISTOR 2SA1091-O	
Q301	8-729-041-66	TRANSISTOR 2SC4015TV2	
Q302	8-729-200-17	TRANSISTOR 2SA1091-O	
Q401	8-729-901-00	TRANSISTOR DTC124EK	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q405	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q410	8-729-032-61	TRANSISTOR 2SC5022-02	
		<RESISTOR>	
R101	1-215-394-00	METAL 75 1% 1/4W	
R103	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R104	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R105	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R106	1-216-019-00	METAL GLAZE 56 5% 1/10W	
R107	1-216-129-00	METAL GLAZE 2.2M 5% 1/10W	
R108	1-219-742-91	RESISTOR (SURGE RESISTANT) 47	
R109	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R110	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R111	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R112	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R113	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R114	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R115	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R116	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R117	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R118	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R121	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R124	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R125	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R126	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R132	1-216-129-00	METAL GLAZE 2.2M 5% 1/10W	
R140	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R141	1-216-009-00	METAL GLAZE 22 5% 1/10W	
R161	1-215-394-00	METAL 75 1% 1/4W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R163	1-216-017-91	METAL GLAZE	47	5%	1/10W
R171	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R172	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R201	1-215-394-00	METAL	75	1%	1/4W
R203	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R204	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R205	1-216-001-00	METAL GLAZE	10	5%	1/10W
R206	1-216-021-00	METAL GLAZE	68	5%	1/10W
R207	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R208	1-219-742-91	RESISTOR (SURGE RESISTANT)	47		
R209	1-216-039-00	METAL GLAZE	390	5%	1/10W
R210	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R211	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R212	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R213	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R214	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R215	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R216	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R217	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R218	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R221	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R224	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R225	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R226	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R232	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R240	1-216-017-91	METAL GLAZE	47	5%	1/10W
R241	1-216-009-00	METAL GLAZE	22	5%	1/10W
R261	1-215-394-00	METAL	75	1%	1/4W
R263	1-216-017-91	METAL GLAZE	47	5%	1/10W
R271	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R272	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R301	1-215-394-00	METAL	75	1%	1/4W
R303	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R304	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R305	1-216-001-00	METAL GLAZE	10	5%	1/10W
R306	1-216-019-00	METAL GLAZE	56	5%	1/10W
R307	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R308	1-219-742-91	RESISTOR (SURGE RESISTANT)	47		
R309	1-216-039-00	METAL GLAZE	390	5%	1/10W
R310	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R311	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R312	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R313	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R314	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R315	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R316	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R317	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R318	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R321	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R324	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R325	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R326	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R332	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R340	1-216-017-91	METAL GLAZE	47	5%	1/10W
R341	1-216-009-00	METAL GLAZE	22	5%	1/10W
R361	1-215-394-00	METAL	75	1%	1/4W
R363	1-216-017-91	METAL GLAZE	47	5%	1/10W
R371	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R372	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R401	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R402	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R403	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R404	1-216-025-91	METAL GLAZE	100	5%	1/10W
R405	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R408	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R409	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R410	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R415	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R416	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R417	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R418	1-216-041-00	METAL GLAZE	470	5%	1/10W
R419	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R420	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R421	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R422	1-216-295-91	CONDUCTOR, CHIP			
R424	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R425	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R428	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R429	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R430	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R431	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R432	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R434	1-216-025-91	METAL GLAZE	100	5%	1/10W
R435	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R436	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R437	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R439	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R440	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R441	1-216-295-91	CONDUCTOR, CHIP			
R442	1-216-295-91	CONDUCTOR, CHIP			
R446	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R447	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R448	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R449	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R450	1-216-041-00	METAL GLAZE	470	5%	1/10W
R451	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R456	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R457	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R458	1-219-749-91	RESISTOR (SURGE RESISTANT)	10K		
R459	1-216-025-91	METAL GLAZE	100	5%	1/10W
R460	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R461	1-211-885-21	METAL	2.2M	5%	1W
R462	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R463	1-211-895-11	METAL	10M	10%	1/4W
R465	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R466	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R467	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R480	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R481	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R486	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R487	1-216-025-91	METAL GLAZE	100	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		<SPARK GAP>	
SG101	1-517-499-21	GAP, SPARK	
SG201	1-517-499-21	GAP, SPARK	
SG301	1-517-499-21	GAP, SPARK	
SG402	1-519-422-11	GAP, SPARK	
		**********	
	*8-933-249-00	D BOARD, COMPLETE **********	
	2-371-561-00	BUSHING (P), INSULATING (IC502, IC1504)	
	4-045-133-01	HOLDER (B), LED (D006, D009) (200PS model)	
	4-045-133-21	HOLDER (B), LED (D006, D009) (200PST model)	
	*4-049-002-01	HOLDER, LED (D003)	
	*4-060-411-01	HEAT SINK (DF) (200PS model)	
	4-061-191-01	SHEET, INSULATE (IC502, IC1504)	
	4-061-192-01	SHEET, INSULATE (Q906)	
	4-382-854-11	SCREW (M3X10), P, SW (+) (IC502, IC603, IC1504, Q514, Q519,Q530, Q531, Q905, Q906, D511, D601, D603, D617, R539, R919)	
	4-812-134-00	RIVET (DIA. 3.5), NYLON	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3 (200PS model)	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3 (200PS model)	
		<CAPACITOR>	
C001	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C002	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C003	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C004	1-104-664-11	ELECT 47MF 20% 25V	
C005	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C006	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C007	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C008	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C009	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C010	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C011	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C012	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C013	1-104-664-11	ELECT 47MF 20% 25V	
C014	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C015	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C016	1-104-664-11	ELECT 47MF 20% 25V	
C017	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C021	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C022	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C023	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C024	1-104-664-11	ELECT 47MF 20% 25V	
C025	1-104-664-11	ELECT 47MF 20% 25V	
C026	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C027	1-126-961-11	ELECT 2.2MF 20% 50V	
C028	1-104-664-11	ELECT 47MF 20% 25V	
C029	1-126-935-11	ELECT 470MF 20% 16V	
C030	1-137-372-11	FILM 0.022MF 5% 50V	
C031	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C036	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C037	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V	
C038	1-126-960-11	ELECT 1MF 20% 50V	
C040	1-163-137-00	CERAMIC CHIP 680PF 5% 50V	
C041	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C042	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C043	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C044	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C045	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C046	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C047	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C048	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C049	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C050	1-136-173-00	FILM 0.47MF 5% 50V	
C051	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C052	1-126-963-11	ELECT 4.7MF 20% 50V	
C053	1-126-960-11	ELECT 1MF 20% 50V	
C054	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C055	1-126-964-11	ELECT 10MF 20% 50V	
C056	1-126-964-11	ELECT 10MF 20% 50V	
C057	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C058	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C059	1-163-257-11	CERAMIC CHIP 180PF 5% 50V	
C060	1-126-964-11	ELECT 10MF 20% 50V	
C061	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C062	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C063	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C064	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C065	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C066	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C067	1-126-964-11	ELECT 10MF 20% 50V	
C069	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C070	1-137-399-11	FILM 0.1MF 5% 50V	
C071	1-126-960-11	ELECT 1MF 20% 50V	
C072	1-137-399-11	FILM 0.1MF 5% 50V	
C073	1-126-964-11	ELECT 10MF 20% 50V	
C074	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C075	1-104-665-11	ELECT 100MF 20% 25V	
C076	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C077	1-126-791-11	ELECT 10MF 20% 16V	
C078	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C079	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C081	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C083	1-104-664-11	ELECT 47MF 20% 25V	
C084	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C085	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C086	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C087	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C088	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C501	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C502	1-163-259-91	CERAMIC CHIP 220PF 5% 50V	
C503	1-126-967-11	ELECT 47MF 20% 50V	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C504	1-136-173-00	FILM	0.47MF	5%	50V
C505	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C506	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C507	1-163-037-11	CERAMIC CHIP	0 022MF	10%	50V
C509	1-104-664-11	ELECT	47MF	20%	25V
C510	1-126-941-11	ELECT	470MF	20%	25V
C511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C512	1-110-641-51	ELECT	33MF	20%	200V
C514	1-164-281-11	CERAMIC	0.001MF		2KV
C515	1-106-383-00	MYLAR	0.047MF	10%	200V
C517	1-137-368-11	FILM	0.0047MF	5%	50V
C518	1-137-368-11	FILM	0.0047MF	5%	50V
C520	1-104-664-11	ELECT	47MF	20%	25V
C521	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C522	1-126-963-11	ELECT	4.7MF	20%	50V
C523	1-117-955-11	FILM	0.17MF	5%	400V
C524	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C525	1-128-562-11	ELECT	47MF	20%	100V
C526	1-128-561-91	ELECT	33MF	20%	100V
C529	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C530	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C531	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C532	1-115-519-11	FILM	0.56MF	5%	250V
C533	1-115-515-11	FILM	0.27MF	5%	250V
C536	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C538	1-117-954-11	CAPACITOR	000000000	0	0
C539	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C540	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C541	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C542	1-136-553-11	FILM	0.0015MF	5%	630V
C543	1-162-558-11	CERAMIC	100PF	10%	2KV
C544	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C545	1-115-512-11	FILM	0.15MF	5%	250
C546	1-162-815-11	CERAMIC	47PF	5%	500V
C547	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C548	1-115-509-11	FILM	0.068MF	5%	250V
C549	1-137-399-11	FILM	0.1MF	5%	50V
C550	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C551	1-162-558-11	CERAMIC	100PF	10%	2KV
C552	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C553	1-117-953-11	FILM	0.033MF	5%	400V
C554	1-136-193-11	FILM	0.47MF	10%	250V
C555	1-162-134-11	CERAMIC	470PF	10%	2KV
C556	1-115-522-11	FILM	1MF	5%	250V
C557	1-107-683-11	ELECT	2.2MF	0	250V
C558	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C559	1-164-281-11	CERAMIC	0.001MF		2KV
C560	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C561	1-104-664-11	ELECT	47MF	20%	25V
C562	1-164-281-11	CERAMIC	0.001MF		2KV
C564	1-126-960-11	ELECT	1MF	20%	50V
C565	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C566	1-106-383-00	MYLAR	0.047MF	10%	200V
C567	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C568	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C569	1-107-597-11	CERAMIC	22PF	5%	500V
C570	1-113-481-11	FILM	1000PF	5%	630V
C571	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C601 ⚠	1-117-697-51	CERAMIC	470PF	10%	250V
C602 ⚠	1-113-513-11	FILM	1MF	20%	275V
C603 ⚠	1-115-166-11	FILM	0.22MF	20%	275V
C604 ⚠	1-113-942-91	CERAMIC	0.0047MF	99%	125V
C605 ⚠	1-117-697-51	CERAMIC	470PF	10%	250V
C606 ⚠	1-113-942-91	CERAMIC	0.0047MF	99%	125V
C607	1-137-479-11	FILM	1MF	10%	400V
C608	1-117-849-21	CAPACITOR	000000000	0	0
C609	1-117-971-51	CAPACITOR	000000000	0	0
C610	1-164-004-11	CERAMIC CHIP	0 1MF	10%	25V
C611	1-126-964-11	ELECT	10MF	20%	50V
C612	1-164-625-11	CERAMIC	680PF	10%	500V
C613	1-126-963-11	ELECT	4.7MF	20%	50V
C615	1-119-575-11	CAPACITOR	000000000	0	0
C616	1-137-399-11	FILM	0.1MF	5%	50V
C617	1-126-933-11	ELECT	100MF	20%	10V
C618	1-130-029-31	FILM	8200PF	2%	50V
C619	1-164-625-11	CERAMIC	680PF	10%	500V
C620	1-104-665-11	ELECT	100MF	20%	25V
C621	1-126-963-11	ELECT	4.7MF	20%	50V
C622	1-126-964-11	ELECT	10MF	20%	50V
C623	1-115-389-11	FILM	0.018MF	3%	800V
C624	1-107-914-11	ELECT	1000MF	20%	25V
C625	1-107-906-11	ELECT	10MF	20%	50V
C626	1-137-370-11	FILM	0.01MF	5%	50V
C627	1-128-563-11	ELECT	100MF	20%	100V
C628	1-126-927-11	ELECT	2200MF	20%	10V
C629	1-126-927-11	ELECT	2200MF	20%	10V
C630	1-128-564-11	ELECT	220MF	20%	100V
C631	1-126-943-11	ELECT	2200MF	20%	25V
C632	1-126-943-11	ELECT	2200MF	20%	25V
C634	1-107-950-11	ELECT	3.3MF	20%	200V
C635	1-128-581-11	ELECT	4 7MF	20%	100V
C636	1-107-888-11	ELECT	47MF	20%	25V
C637	1-107-888-11	ELECT	47MF	20%	25V
C638	1-104-664-11	ELECT	47MF	20%	25V
C639	1-107-888-11	ELECT	47MF	20%	25V
C640	1-137-370-11	FILM	0.01MF	5%	50V
C641	1-107-888-11	ELECT	47MF	20%	25V
C642	1-107-888-11	ELECT	47MF	20%	25V
C643	1-128-564-11	ELECT	220MF	20%	100V
C644	1-115-389-11	FILM	0.018MF	3%	800V
C645	1-102-112-00	CERAMIC	330PF	10%	50V
C647	1-137-399-11	FILM	0.1MF	5%	50V
C648	1-137-370-11	FILM	0.01MF	5%	50V
C901	1-126-961-11	ELECT	2.2MF	20%	50V
C902	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C903	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C904	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C905	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C906	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C907	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C908	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C909	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

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REF.NO.	PART NO.	DESCRIPTION				REMARK
C910	1-126-934-11	ELECT	220MF	20%	16V	
C911	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	
C912	1-106-383-00	MYLAR	0.047MF	10%	200V	
C913	1-126-967-11	ELECT	47MF	20%	50V	
C914	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V	
C915	1-110-641-51	ELECT	33MF	20%	200V	
C917	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C918	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C919	1-137-368-11	FILM	0.0047MF	5%	50V	
C920	1-117-626-31	FILM	2000PF	3%	1.2KV	
C921	1-137-372-11	FILM	0.022MF	5%	50V	
C922	1-106-228-00	MYLAR	0.22MF	10%	100V	
C923	1-106-220-00	MYLAR	0.1MF	10%	100V	
C924	1-106-355-12	MYLAR	0.0033MF	10%	200V	
C925	1-106-220-00	MYLAR	0.1MF	10%	100V	
C926	1-136-105-00	FILM	0.33MF	5%	200V	
C927	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C928	1-104-665-11	ELECT	100MF	20%	25V	
C929	1-106-383-00	MYLAR	0.047MF	10%	200V	
C930	1-115-871-11	ELECT	1MF	20%	50V	
C931	1-126-964-11	ELECT	10MF	20%	50V	
C932	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C933	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C935	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1501	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1502	1-137-399-11	FILM	0.1MF	5%	50V	
C1503	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1504	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1505	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1506	1-104-664-11	ELECT	47MF	20%	25V	
C1507	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1508	1-137-399-11	FILM	0.1MF	5%	50V	
C1509	1-104-664-11	ELECT	47MF	20%	25V	
C1513	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1514	1-107-914-11	ELECT	1000MF	20%	25V	
C1515	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C1516	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1517	1-107-894-11	ELECT	220MF	20%	35V	
C1518	1-107-914-11	ELECT	1000MF	20%	25V	
C1519	1-106-228-00	MYLAR	0.22MF	10%	100V	

<CONNECTOR>

CN501*	1-508-879-11	BASE POST	
CN502*	1-564-515-11	PLUG, CONNECTOR 12P	
CN503	1-564-595-11	PLUG, CONNECTOR 14P	
CN504*	1-564-510-11	PLUG, CONNECTOR 7P	
CN505	1-764-101-11	PIN, CONNECTOR (PC BOARD) 2P	
CN506*	1-779-465-11	PIN, CONNECTOR (WITH PCB) 6P	
CN507*	1-564-509-11	PLUG, CONNECTOR 6P	
CN509*	1-564-506-11	PLUG, CONNECTOR 3P	
CN601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN602*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN604	1-766-240-11	PIN, CONNECTOR (PC BOARD) 2P	

<DIODE>

D001	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D003	8-719-045-19	DIODE SPB-26MVWF	
D005	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D006	8-719-311-90	DIODE SEL1922D-C	
D009	8-719-311-90	DIODE SEL1922D-C	
D010	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D013	8-719-106-23	ZENRE DIODE RD7.5M-B2	
D014	8-719-404-49	DIODE MA111	
D017	8-719-404-49	DIODE MA111	
D018	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D020	8-719-062-51	DIODE 1PS226-115	
D021	8-719-062-51	DIODE 1PS226-115	
D022	8-719-062-51	DIODE 1PS226-115	
D023	8-719-062-51	DIODE 1PS226-115	
D024	8-719-109-96	ZENRE DIODE RD6.8ESB1	
D028	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D030	8-719-801-78	DIODE 1SS184	
D503	8-719-911-19	DIODE 1SS119-25	
D504	8-719-404-49	DIODE MA111	
D505	8-719-110-02	ZENRE DIODE RD7.5ESB1	
D506	8-719-978-61	ZENRE DIODE DTZ-TT11-13B	
D508	8-719-052-86	DIODE D2L40-TA	
D509	8-719-404-49	DIODE MA111	
D510	8-719-975-77	DIODE SB340	
D511	8-719-061-21	DIODE FMQ-G5FMS	
D512	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D513	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D514	8-719-911-19	DIODE 1SS119-25	
D515	8-719-911-19	DIODE 1SS119-25	
D516	8-719-028-72	DIODE RGP02-17EL-6433	
D517	8-719-951-30	DIODE ERA91-02	
D518	8-719-404-49	DIODE MA111	
D519	8-719-911-19	DIODE 1SS119-25	
D520	8-719-948-45	DIODE ERA22-08	
D522	8-719-911-19	DIODE 1SS119-25	
D523	8-719-911-19	DIODE 1SS119-25	
D524	8-719-028-72	DIODE RGP02-17EL-6433	
D525	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D601	⚠ 8-719-510-53	DIODE D4SB60L	
D602	8-719-911-19	DIODE 1SS119-25	
D603	8-719-029-04	DIODE D5L60	
D604	8-719-510-02	DIODE D1NS4	
D606	8-719-979-64	DIODE UF4005PKG23	
D607	8-719-110-31	ZENRE DIODE RD12ESB2	
D608	8-719-911-19	DIODE 1SS119-25	
D609	8-719-302-43	DIODE EL1Z	
D610	8-719-947-06	DIODE RGP10JPKG23	
D611	8-719-066-51	DIODE P6KE170AG23	
D612	8-719-028-45	DIODE D2L20U	
D613	8-719-022-97	DIODE D2S4MF	
D614	8-719-510-64	DIODE S2LA20F	
D615	8-719-052-86	DIODE D2L40-TA	
D616	8-719-052-86	DIODE D2L40-TA	
D617	8-719-052-91	DIODE D4SBS4-F	
D619	8-719-022-97	DIODE D2S4MF	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

D

REF.NO.	PART NO.	DESCRIPTION	REMARK
D620	8-719-110-63	DIODE RD24ESB3	
D621	8-719-911-19	DIODE 1SS119-25	
D622	8-719-110-31	ZENRE DIODE RD12ESB2	
D901	8-719-404-49	DIODE MA111	
D902	8-719-158-49	ZENRE DIODE RD12SB2	
D903	8-719-404-49	DIODE MA111	
D906	8-719-404-49	DIODE MA111	
D907	8-719-404-49	DIODE MA111	
D908	8-719-404-49	DIODE MA111	
D909	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D910	8-719-110-36	ZENRE DIODE RD13ESB2	
D912	8-719-110-46	ZENRE DIODE RD16ESB3	
D913	8-719-979-58	DIODE EGP10D	
D914	8-719-110-46	ZENRE DIODE RD16ESB3	
D915	8-719-911-19	DIODE 1SS119-25	
D916	8-719-978-81	ZENRE DIODE DTZ-TT11-22B	
D917	8-719-052-86	DIODE D2L40-TA	
D918	8-719-158-49	ZENRE DIODE RD12SB2	
D919	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D1501	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D1502	8-719-109-85	ZENRE DIODE RD5.1ESB2	
D1503	8-719-911-19	DIODE 1SS119-25	
D1504	8-719-908-03	DIODE GP08D	
D1505	8-719-908-03	DIODE GP08D	
D1506	8-719-908-03	DIODE GP08D	
		<FUSE>	
F601	⚠1-576-233-11	FUSE (H.B.C.) (6.3A/250V)	
	1-533-223-11	HOLDER, FUSE ; F601	
		<FERRITE BEAD>	
FB001	1-414-598-11	INDUCTOR, FERRITE BEAD	
FB002	1-414-598-11	INDUCTOR, FERRITE BEAD	
FB501	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB502	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB601	1-410-396-71	FERRITE BEAD INDUCTOR 0.45UH	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB901	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		<IC>	
IC001	8-759-469-86	IC MB90553	
IC002	8-759-442-20	IC 24LC21A/SN	
IC004	8-759-454-79	IC 24LC16BT/SN	
IC005	8-759-162-80	IC MM1170BFB	
IC007	8-752-078-46	IC CXA2043Q	
IC008	8-759-701-59	IC NJM78M09FA	
IC009	8-759-925-74	IC SN74HC04ANS	
IC010	8-752-083-83	IC CXA2044M-T6	
IC011	8-759-168-20	IC TA78L09S	
IC013	8-759-269-09	IC SN74HCT04ANS	
IC501	8-759-100-96	IC UPC4558G2	
IC502	8-759-803-42	IC LA6500-FA	
IC601	8-749-013-76	IC PQ6RD83B	
IC602	8-759-469-10	IC TOP223PF1	
IC603	8-749-013-78	IC MCR5102	
IC604	8-749-012-05	IC DM-57	
IC605	8-759-231-53	IC TA7805S	
IC901	8-759-467-70	IC BA9756F-E2	
IC902	8-759-510-73	IC BA10393F-E2	
IC1501	8-759-803-42	IC LA6500-FA	
IC1502	8-759-822-38	IC LA6510	
IC1504	8-759-980-58	IC TDA8172	
		<COIL>	
L001	1-412-537-31	INDUCTOR 100UH	
L002	1-412-549-11	INDUCTOR 1MMH	
L003	1-410-521-11	INDUCTOR 100UH	
L501	1-412-537-31	INDUCTOR 100UH	
L502	1-406-675-11	COIL, CHOKE 4.7MMH	
L503	1-406-675-11	COIL, CHOKE 4.7MMH	
L504	1-416-398-11	COIL, HORIZONTAL LINEARITY	
L505	1-406-675-11	COIL, CHOKE 4.7MMH	
L506	1-406-972-61	COIL, CHOKE 15UH	
L602	1-412-537-31	INDUCTOR 100UH	
L603	1-412-529-11	INDUCTOR 22UH	
L604	1-412-529-11	INDUCTOR 22UH	
L605	1-412-529-11	INDUCTOR 22UH	
L606	1-412-529-11	INDUCTOR 22UH	
L901	1-412-537-31	INDUCTOR 100UH	
L902	1-406-660-41	COIL, CHOKE 15UH	
		<PHOTO COUPLER>	
PH601	8-749-010-64	PHOTO COUPLER PC123F2	
PH602	8-749-010-64	PHOTO COUPLER PC123F2	
		<IC LINK>	
PS501	⚠1-533-592-31	LINK, IC (1.5A/90V AC, 60 DC)	
PS601	⚠1-533-593-31	LINK, IC (2A/90V AC, 60 DC)	
PS901	⚠1-533-592-31	LINK, IC (1.5A/90V AC, 60 DC)	
		<TRANSISTOR>	
Q001	8-729-901-00	TRANSISTOR DTC124EK	
Q002	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q003	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q005	8-729-901-00	TRANSISTOR DTC124EK	
Q007	8-729-027-31	TRANSISTOR DTA124EKA-T146	
Q008	8-729-216-22	TRANSISTOR 2SA1162-G	
Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q010	8-729-216-22	TRANSISTOR 2SA1162-G	
Q503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q505	8-729-216-22	TRANSISTOR 2SA1162-G	
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q509	8-729-901-97	TRANSISTOR 2SA1036K-Q	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
Q512	8-729-807-12	TRANSISTOR 2SD1802-S	
Q514	8-729-015-28	TRANSISTOR IRFI9630GS	
Q516	8-729-800-32	TRANSISTOR 2SC2362K-G	
Q517	8-729-140-50	TRANSISTOR 2SC3209LK	
Q518	8-729-041-95	TRANSISTOR IRLI540GLF33	
Q519	8-729-041-64	TRANSISTOR BU2527AX-ON5020	
Q520	8-729-041-93	TRANSISTOR IRLI530GLF33	
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q522	8-729-041-93	TRANSISTOR IRLI530GLF33	
Q523	8-729-041-93	TRANSISTOR IRLI530GLF33	
Q524	8-729-041-93	TRANSISTOR IRLI530GLF33	
Q525	8-729-216-22	TRANSISTOR 2SA1162-G	
Q527	8-729-033-25	TRANSISTOR DTC114GKA	
Q528	8-729-204-91	TRANSISTOR 2SA1049-GR	
Q529	8-729-178-43	TRANSISTOR 2SC2784-E	
Q530	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q531	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q532	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q601	8-729-033-25	TRANSISTOR DTC114GKA	
Q602	8-729-029-40	TRANSISTOR DTA124ESA	
Q603	8-729-033-25	TRANSISTOR DTC114GKA	
Q604	8-729-033-26	TRANSISTOR DTA114GKAT146	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q903	8-729-901-97	TRANSISTOR 2SA1036K-Q	
Q904	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q905	8-729-015-28	TRANSISTOR IRFI9630GS	
Q906	8-729-033-91	TRANSISTOR 2SK1120LBSONY2	

<RESISTOR>

R001	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R003	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R005	1-216-025-91	METAL GLAZE 100	5%	1/10W
R007	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R008	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R009	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R011	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R012	1-216-045-00	METAL GLAZE 680	5%	1/10W
R013	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R015	1-216-017-91	METAL GLAZE 47	5%	1/10W
R016	1-216-041-00	METAL GLAZE 470	5%	1/10W
R017	1-216-041-00	METAL GLAZE 470	5%	1/10W
R018	1-216-017-91	METAL GLAZE 47	5%	1/10W
R019	1-216-037-00	METAL GLAZE 330	5%	1/10W
R020	1-216-037-00	METAL GLAZE 330	5%	1/10W
R023	1-216-025-91	METAL GLAZE 100	5%	1/10W
R024	1-216-025-91	METAL GLAZE 100	5%	1/10W
R025	1-216-025-91	METAL GLAZE 100	5%	1/10W
R026	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R027	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R028	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R029	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R030	1-216-041-00	METAL GLAZE 470	5%	1/10W
R031	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R032	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R033	1-216-037-00	METAL GLAZE 330	5%	1/10W
R034	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R035	1-216-671-11	METAL CHIP 6.8K	0.50%	1/10W
R036	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R037	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R038	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R039	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R040	1-216-037-00	METAL GLAZE 330	5%	1/10W
R042	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R043	1-216-037-00	METAL GLAZE 330	5%	1/10W
R044	1-216-295-91	CONDUCTOR, CHIP		
R045	1-216-295-91	CONDUCTOR, CHIP		
R046	1-216-295-91	CONDUCTOR, CHIP		
R048	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R049	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R051	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R052	1-216-025-91	METAL GLAZE 100	5%	1/10W
R053	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R055	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R056	1-216-017-91	METAL GLAZE 47	5%	1/10W
R057	1-216-025-91	METAL GLAZE 100	5%	1/10W
R058	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R059	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R061	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R062	1-216-025-91	METAL GLAZE 100	5%	1/10W
R063	1-216-025-91	METAL GLAZE 100	5%	1/10W
R064	1-216-295-91	CONDUCTOR, CHIP		
R065	1-216-105-91	METAL GLAZE 220K	5%	1/10W
R066	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R067	1-216-679-11	METAL CHIP 15K	0.50%	1/10W
R068	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R069	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R070	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R072	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R073	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R074	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R075	1-216-681-11	METAL CHIP 18K	0.50%	1/10W
R076	1-216-651-11	METAL CHIP 1K	0.50%	1/10W
R077	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R078	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R079	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R080	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R081	1-216-661-11	METAL CHIP 2.7K	0.50%	1/10W
R082	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R083	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R084	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R086	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R087	1-216-679-11	METAL CHIP 15K	0.50%	1/10W
R088	1-216-295-91	CONDUCTOR, CHIP		
R089	1-216-025-91	METAL GLAZE 100	5%	1/10W
R090	1-216-025-91	METAL GLAZE 100	5%	1/10W
R091	1-216-025-91	METAL GLAZE 100	5%	1/10W
R092	1-216-025-91	METAL GLAZE 100	5%	1/10W
R093	1-216-025-91	METAL GLAZE 100	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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D

REF.NO.	PART NO.	DESCRIPTION			REMARK
R094	1-216-025-91	METAL GLAZE	100	5%	1/10W
R095	1-216-025-91	METAL GLAZE	100	5%	1/10W
R096	1-216-025-91	METAL GLAZE	100	5%	1/10W
R098	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R099	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R501	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R502	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R503	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R504	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R505	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R506	1-216-033-00	METAL GLAZE	220	5%	1/10W
R507	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R508	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R509	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R510	1-216-033-00	METAL GLAZE	220	5%	1/10W
R511	1-216-025-91	METAL GLAZE	100	5%	1/10W
R512	1-219-755-11	RESISTOR (SURGE RESISTANT)	10M		
R513	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R514	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R515	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R516	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R517	1-249-397-11	CARBON	22	5%	1/4W
R518	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R519	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W F
R520	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R521	1-219-510-11	RESISTOR(SURGE RESISTANT)	470K		
R522	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R523	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R524	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R525	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R526	1-260-296-11	CARBON	2.2	5%	1/2W
R527	1-215-860-11	METAL OXIDE	33	5%	1W
R528	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R529	1-216-691-11	METAL CHIP	47K	0.50%	1/10W F
R530	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R531	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R532	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R533	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R534	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R535	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R536	1-216-425-11	METAL OXIDE	56	5%	1W
R537	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R538	1-216-073-00	METAL GLAZE	10K	5%	1/10W F
R539	1-219-677-11	METAL	1.8	5%	10W
R540	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R541	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R542	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R543	1-249-429-11	CARBON	10K	5%	1/4W
R544	1-216-423-11	METAL OXIDE	27	5%	1W
R545	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R546	1-216-049-91	METAL GLAZE	1K	5%	1/10W F
R547	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R548	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R549	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R550	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R551	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R552	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R553	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R554	1-249-429-11	CARBON	10K	5%	1/4W
R555	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R556	1-216-073-00	METAL GLAZE	10K	5%	1/10W F
R557	1-216-385-11	METAL OXIDE	0.47	5%	3W
R558	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R559	1-216-049-91	METAL GLAZE	1K	5%	1/10W F
R560	1-260-096-11	CARBON	560	5%	1/2W
R561	1-249-413-11	CARBON	470	5%	1/4W
R562	1-260-320-11	CARBON	220	5%	1/2W
R563	1-215-886-11	METAL OXIDE	100	5%	2W F
R564	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R565	1-216-079-00	METAL GLAZE	18K	5%	1/10W F
R566	1-260-316-51	CARBON	100	5%	1/2W
R567	1-249-403-11	CARBON	68	5%	1/4W
R568	1-214-840-00	METAL	100	1%	1/2W
R569	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R570	1-260-344-71	CARBON	22K	5%	1/2W
R571	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R572	1-249-437-11	CARBON	47K	5%	1/4W
R573	1-249-437-11	CARBON	47K	5%	1/4W
R574	1-249-437-11	CARBON	47K	5%	1/4W
R575	1-249-437-11	CARBON	47K	5%	1/4W
R576	1-249-437-11	CARBON	47K	5%	1/4W
R577	1-249-389-11	CARBON	4.7	5%	1/4W
R578	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R579	1-216-081-00	METAL GLAZE	22K	5%	1/10W F
R580	1-249-429-11	CARBON	10K	5%	1/4W
R582	1-249-413-11	CARBON	470	5%	1/4W
R583	1-249-389-11	CARBON	4.7	5%	1/4W
R584	1-249-389-11	CARBON	4.7	5%	1/4W F
R587	1-216-357-00	METAL OXIDE	4.7	5%	1W F
R589	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W F
R590	1-247-815-91	CARBON	220	5%	1/4W F
R591	1-249-393-11	CARBON	10	5%	1/4W
R592	1-216-341-11	METAL OXIDE	0.22	5%	1W
R593	1-216-675-11	METAL CHIP	10K	0.50%	1/10W F
R594	1-216-689-11	METAL CHIP	39K	0.50%	1/10W F
R595	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R596	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R597	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R601 ⚠	1-220-625-91	RES, (SURGE RESISTANT)	330K		
R602	1-260-089-11	CARBON	150	5%	1/2W
R603	1-249-403-11	CARBON	68	5%	1/4W
R604	1-215-432-00	METAL	3K	1%	1/4W
R605	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R607	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R608	1-218-191-11	METAL OXIDE	0.1	5%	1W F
R610	1-215-429-00	METAL	2.2K	1%	1/4W
R611	1-249-389-11	CARBON	4.7	5%	1/4W F
R613	1-247-791-91	CARBON	22	5%	1/4W
R614	1-215-861-00	METAL OXIDE	47	5%	1W F
R615	1-247-815-91	CARBON	220	5%	1/4W
R616	1-249-441-11	CARBON	100K	5%	1/4W F
R617	1-249-417-11	CARBON	1K	5%	1/4W

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R618	1-249-441-11	CARBON	100K	5%	1/4W	
R621	1-215-459-00	METAL	39K	1%	1/4W	
R622	1-215-481-00	METAL	330K	1%	1/4W	
R623	1-249-419-11	CARBON	1.5K	5%	1/4W	
R624	1-249-417-11	CARBON	1K	5%	1/4W	
R625	1-249-413-11	CARBON	470	5%	1/4W	
R626	1-249-419-11	CARBON	1.5K	5%	1/4W	
R627	1-218-191-11	METAL OXIDE	0.1	5%	1W	F
R628	1-249-417-11	CARBON	1K	5%	1/4W	
R629	1-215-443-00	METAL	8.2K	1%	1/4W	F
R630	1-249-421-11	CARBON	2.2K	5%	1/4W	
R631	1-249-429-11	CARBON	10K	5%	1/4W	
R632	1-249-429-11	CARBON	10K	5%	1/4W	
R633	1-215-477-00	METAL	220K	1%	1/4W	
R634	1-215-477-00	METAL	220K	1%	1/4W	
R635	1-215-477-00	METAL	220K	1%	1/4W	
R636	1-215-451-00	METAL	18K	1%	1/4W	
R637	1-215-421-00	METAL	1K	1%	1/4W	
R638	1-249-429-11	CARBON	10K	5%	1/4W	
R639	1-249-441-11	CARBON	100K	5%	1/4W	
R901	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R902	1-216-097-91	METAL GLAZE	100K	5%	1/10W	
R903	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	
R904	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R905	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R906	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R907	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R908	1-249-397-11	CARBON	22	5%	1/4W	
R909	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R910	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R911	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R912	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	F
R913	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R914	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R915	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R916	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R917	1-249-397-11	CARBON	22	5%	1/4W	
R918	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R919	1-219-727-11	METAL	68	5%	10W	F
R920	1-249-389-11	CARBON	4.7	5%	1/4W	
R921	1-219-748-11	RESISTOR(SURGE RESISTANT)	4.7K			
R922	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	F
R923	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R924	1-220-825-91	RES, (SURGE RESISTANT)	330K			
R925	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R926	1-219-748-11	RESISTOR(SURGE RESISTANT)	4.7K			
R927	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R928	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R929	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R930	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R931	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R932	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R933	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R934	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R935	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R936	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R937	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R938	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R939	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R940	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R942	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R943	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R944	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R945	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R946	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R947	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R948	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R951	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1001	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1002	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1003	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1004	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1005	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1006	1-249-389-11	CARBON	4.7	5%	1/4W	
R1007	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1008	1-216-049-91	METAL GLAZE	1K	5%	1/10W	F
R1009	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R1011	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1021	1-216-097-91	METAL GLAZE	100K	5%	1/10W	
R1022	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1024	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R1025	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R1028	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1029	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R1030	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1031	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1032	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1035	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1501	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1502	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1503	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1504	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1505	1-249-383-11	CARBON	1.5	5%	1/4W	
R1506	1-216-473-11	METAL OXIDE	56	5%	3W	
R1507	1-249-383-11	CARBON	1.5	5%	1/4W	F
R1508	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	F
R1509	1-216-298-00	METAL GLAZE	2.2	5%	1/10W	F
R1510	1-249-383-11	CARBON	1.5	5%	1/4W	
R1511	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1512	1-216-105-91	METAL GLAZE	220K	5%	1/10W	F
R1513	1-216-298-00	METAL GLAZE	2.2	5%	1/10W	
R1514	1-249-383-11	CARBON	1.5	5%	1/4W	
R1515	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1516	1-215-885-00	METAL OXIDE	68	5%	2W	F
R1517	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1518	1-216-077-00	METAL GLAZE	15K	5%	1/10W	F
R1519	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1520	1-216-097-91	METAL GLAZE	100K	5%	1/10W	
R1521	1-249-383-11	CARBON	1.5	5%	1/4W	
R1522	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1523	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1525	1-216-077-00	METAL GLAZE	15K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R1526	1-216-659-11	METAL CHIP	2.2K	0.50% 1/10W	F
R1531	1-214-792-00	METAL	1	1% 1/2W	
R1532	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1533	1-216-663-11	METAL CHIP	3.3K	0.50% 1/10W	
R1534	1-216-393-00	METAL OXIDE	2.2	5% 3W	
R1535	1-216-651-11	METAL CHIP	1K	0.50% 1/10W	
R1536	1-249-413-11	CARBON	470	5% 1/4W	F
R1537	1-216-687-11	METAL CHIP	33K	0.50% 1/10W	
R1538	1-215-866-11	METAL OXIDE	330	5% 1W	F
R1539	1-249-381-11	CARBON	1	5% 1/4W	
R1540	1-216-393-00	METAL OXIDE	2.2	5% 3W	F
R1541	1-214-792-00	METAL	1	1% 1/2W	F
R1542	1-216-667-11	METAL CHIP	4.7K	0.50% 1/10W	F
		<VARIABLE RESISTOR>			
RV901	⚠ 1-241-767-21	RES, ADJ, CERMET 100K (HV ADJ)			
	3-710-578-01	COVER, VOLUME, 6 MOLD ; FV901			
		<RELAY>			
RY501	1-755-137-11	RELAY			
RY601	1-755-031-11	RELAY			
RY602	1-515-669-21	RELAY			
		<SWITCH>			
S001	1-692-431-21	SWITCH, TACTILE (CONT+)			
S002	1-692-431-21	SWITCH, TACTILE (CONT–)			
S003	1-692-431-21	SWITCH, TACTILE (OSD)			
S004	1-692-431-21	SWITCH, TACTILE (BRT+)			
S005	1-692-431-21	SWITCH, TACTILE (BRT–)			
S006	1-692-431-21	SWITCH, TACTILE (INPUT)			
S007	1-692-431-21	SWITCH, TACTILE (ASC)			
S008	1-692-431-21	SWITCH, TACTILE (RESET)			
SW601	⚠ 1-571-433-31	SWITCH, PUSH (AC POWER)			
		<SPARK GAP>			
SG901	1-519-422-11	GAP, SPARK			
SG902	1-519-421-11	GAP, DISCHARGE			
		<TRANSFORMER>			
T501	1-431-056-11	TRANSFORMER, HORIZONTAL DRIVE			
T502	1-431-414-11	TRANSFORMER, FERRITE (DFT)			
T503	1-411-594-11	COIL, CHOKE 5MMH			
T504	1-431-443-11	TRANSFORMER, FERRITE (HST)			
T505	1-429-301-11	TRANSFORMER, FERRITE (HCT)			
T601	⚠ 1-429-180-11	TRANSFORMER, LINE FILTER			
T602	1-431-445-11	TRANSFORMER, CONVERTER (PFT)			
T603	1-431-416-11	TRANSFORMER, CONVERTER (SRT)			
T604	⚠ 1-431-446-11	TRANSFORMER, CONVERTER (PIT)			
T901	⚠ X-4035-177-1	TRANSFORMER ASSY, FLYBACK			(NX-4401/J1M4)
T902	1-411-567-11	COIL, CHOKE 500UH			
		<THERMISTOR>			
TH501	1-807-796-11	THERMISTOR			
TH601	⚠ 1-809-260-11	THERMISTOR, POWER			
THP601	1-809-827-11	THERMISTOR, POSITIVE			
		<VARISTOR>			
VDR601	1-810-622-11	VARISTOR-			
VDR602	⚠ 1-801-268-51	VARISTOR TNR14V471K660			
		<CRYSTAL>			
X001	1-567-781-61	VIBRATOR, CRYSTAL			

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MISCELLANEOUS

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	⚠ 1-251-382-22	INLET, AC 3P (WITH NOISE FILTE)			
	⚠ 1-416-282-41	COIL, DEMAGNETIC			
	⚠ 1-452-923-21	NECK ASSEMBLY			
	⚠ 1-558-481-11	CORD SET, POWER (10A/125V)			(SH model)
	1-573-983-31	ADAPTOR, CONVERSION (for Maintosh)			
	1-694-347-11	TERMINAL BOARD ASSY, I/O			
	⚠ 1-765-581-11	CORD SET, POWER SUPPLY (10A/250V)			(AEP model)
	⚠ 1-765-718-11	CORD SET, POWER (10A/125V)			(U/C model)
	⚠ 1-775-706-11	CORD SET, POWER (10A/250V)			(UK model)
	1-774-648-21	ADAPTOR, CONVERSION (for VGA)			(AEP, UK, SH model)
	1-777-743-11	CABLE ASSY (15PDSUB)			(2CONNECTOR)
	⚠ 8-451-488-11	DEFLECTIN YOKE (Y17FRJ-M)			
V901	⚠ 8-738-793-05	PICTURE TUBE (17FRGM)			(except SH model)
V901	⚠ 8-738-728-05	PICTURE TUBE (17FRFM) (SH model)			
	⚠ 8-738-728-80	ITC ASSY (17FRFM-RS1) (SH model)			
	⚠ 8-738-733-81	ITC ASSY (17FRFM-R1) (except SH model)			

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